NEW

SONG THRUSH

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A NEW SYSTEM

OF THE

NATURAL HISTORY

OF

BIRDS.

——Volucrumque genus.

BUCH. SAT. IN CAR. LOTH. CARD.

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ERRATA.

Page 4, 8th line from the bottom, for *two* read *four*.

124, and in a few other places, for *Adamſon* read *Adamſon*.

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NATURAL HISTORY

OF

BIRDS.

CHAPTER I.

SECTION I.—*Of Birds in general.*

As we proceed from the Hiſtory of Quadrupeds, to inquire into that of the feathered race, which conſtitutes the ſecond great claſs of the animal kingdom, we find nature in this department poſſeſſing the ſame vivifying power. Here ſhe ſeems ſtill more prolific, and more diverſified in her operations. Whether we examine her productions in the earth, the air, or the ſea, we find no ſpace unoccupied, nor mark indicating that her powers are exhauſted or fatigued. In all her families of quadrupeds, birds, inſects, and fiſhes, ſhe ſports with unabating luxuriancy, and teems with fecundity. The naturaliſt, in every ſtep he advances in his inquiries, meets with multiplied and irreſiſtible evidences of the exiſtence of a creative mind. The power, wiſdom, and munificence of the great parent of the univerſe, in proportion as he becomes acquainted with their effects, begin to force

themſelves upon his mind, with all the energy of conviction.

Thus, Nature is ſilent only to thoſe who know not how to interrogate her. To the man of an inquiſitive mind, ſhe offers ample inſtruction, with regard to the rank he holds in the works of creation, to the materials of his enjoyment, to the number and variety of thoſe creatures which he is deſtined to govern; and while ſhe thus diſplays before him the extent of his obligations, ſhe alſo leads him to a knowledge of that Being to whom he owes them *.

Hence, the ſtudy of nature, by enlarging our ideas of his works, and by exalting our veneration of the Supreme Being, advances the knowledge of religion, and enforces the obligations of virtue. It is attended alſo with numberleſs other benefits to human life; and it is only among men of little genius, and leſs application, that it has appeared a dry, frivolous, and idle employment †. In the progreſs of ſociety from a rude to a civilized ſtate, the knowledge and domeſtication of animals have always been deemed an important æra in its hiſtory, and have operated with deciſive influence on the condition of man. Without the miniſtry of animals, his operations on nature around him are extremely feeble and limited, many of the animals being naturally ſuperior to him in ſize, courage, and ſtrength. Without this, his dominion over them muſt prove rather nominal than real: He is a maſter without ſervants; a monarch who has no ſubjects ‡.

If, from the miniſtry of quadrupeds, man derives his moſt conſiderable aſſiſtance in mantaining his influence over

* Pennant's Britiſh Zoology. † Edwards's Hiſtory of Birds.

‡ Robertſon's Hiſtory of South America.

over the ſoil, it is to the feathered race he is indebted for many of his pleaſures, and for his moſt innocent enjoyments: among them he has friends of zealous and ſteady attachment, and few enemies of any force or inveteracy. The race of birds ſeems peculiarly formed by the hand of nature to pleaſe his ſenſes. By the richneſs and brilliancy of their colours, the melody of their voices, the beauty and elegance of their form, they charm the eye of the beholder, and ſoothe his ear, delight and captivate his imagination. By theſe qualities, they invariably afford him pleaſure, whether he contemplate the melodious grove, the ſcreaming precipice, or the noiſy foreſt: by theſe they cheer his ſolitude; they animate and adorn the ſcenes of nature. The examination of their inſtincts for the purpoſes of preſerving the life of the individual, or of perpetuating the ſpecies; their attachments, their averſions, the whole of their manners and economy, afford ſubject of admiration, and preſent views of the wiſdom of Providence, equally pleaſing and inſtructive *. Thoſe who enjoy the leiſure of a country life, might innocently relieve the burden of many a vacant hour, did they direct to the works of nature that inquiſitive ſpirit which is too often exerciſed in trivial and officious reſearches into the conduct of their neighbours. While they thus found a harmleſs and agreeable employment for their talents, they would relieve ſociety of two very conſiderable evils,—idleneſs and ſlander.—There are others who are invited to this ſtudy, by ſtill more urgent motives. Such as practiſe the arts that are imitative of nature, Poetry, Painting, and Sculpture, cannot be ſucceſsful without a competent knowledge of the originals from which their imagery is drawn. Men of a ſtudious and ſedentary life,

* Goldſmith's Nat. Hiſt.

in ſearching for an agreeable relaxation to their minds, pay a neceſſary condeſcenſion to human weakneſs. Theſe, amid the inhabitants of the grove, might innocently beguile the dream of life, and find an uſeful relaxation from the ſeverity of wiſdom. The world is the theatre on which all men are deſtined to be employed and amuſed; and they cannot be ſufficiently intereſted in the ſcenes that are diſplayed before them, who are altogether unacquainted with the objects of which they are compoſed. "The mere uninformed ſpectator paſſes on "in gloomy ſolitude; while the naturaliſt, in every "plant, in every inſect, and in every pebble, finds ſome-"thing to entertain his curioſity and excite his ſpecula-"tion *."

With all theſe allurements, the ſcience of Ornithology has been but little ſtudied, and is far from having arrived at that degree of perfection to which the knowledge of quadrupeds has been carried. Of two thouſand different ſpecies of birds, which Linnæus ſuppoſes inhabit the earth, and his computation is perhaps far below their actual number, fifteen hundred are all that are yet known; and many of theſe have been but lately and imperfectly deſcribed. The different ſpecies of quadrupeds do not much exceed two hundred; a large proportion of theſe are generally found adjacent to the places where writers have deſcribed them. The birds are not only more numerous than the animals of the firſt claſs, but are alſo ſubject to much greater varieties, and leſs confined in their habitation. It is a rule which Nature ſeems to have preſcribed to herſelf, that the ſmaller her progeny is, the more numerous and diverſified does ſhe produce it. The larger animals, which procreate ſeldom, and in ſmall numbers,

* Goldſmith.

numbers, have but few ſpecies nearly allied to them; while the ſmaller are related to many kindred tribes, and each ſpecies is ſubject to much variety *. Agreeable to this rule, birds, from the multiplicity of their number, and the ſmallneſs of their ſize, are infinitely more varied in the ſame ſpecies, than even the leſſer quadrupeds. In the latter claſs, too, the difference between the male and the female is generally ſo ſlight as to occaſion but few miſtakes; whereas, among birds, the female is often ſo diſtinguiſhed from her mate, both by ſize and colour, that ſome eminent naturaliſts have miſtaken them for different ſpecies, and have arranged them accordingly.

In order, therefore, to obtain an accurate knowledge of this diviſion of the animal kingdom, an individual of each ſpecies will not ſuffice; two, and ſometimes four of the ſame kind, muſt come under the inſpection of the naturaliſt, becauſe the young are frequently different from the adult of the ſame kind. If, then, there are two thouſand different ſpecies of birds, the naturaliſt who would deſcribe them accurately muſt have examined eight thouſand individuals. Beſides this circumſtance, there are many other diverſities produced by climate and food, by domeſtication and captivity, by natural and forced migrations. All theſe obſtacles combine together againſt the Ornithologiſt, and increaſe the difficulty of his labours, when conſidered merely in the light of a nomenclator, whoſe ſole province it is to diſtinguiſh the animals from each other, and to aſſign them their names. How hard, then, muſt his taſk prove, when he attempts to delineate their manners and detail their œconomy!

The quadruped is in ſome degree fixed in his reſidence, and therefore forced to ſubmit to the laws of the climate in

* Buffon, Hiſt. Gen. et Part. des Oiſeaux.

in which he is produced: Hence, by knowing the continent, or part of the continent, where he reſides, you obtain ſome general outlines to direct you in giving his particular hiſtory. With regard to the bird, even this is wanting: His faculty of traverſing a vaſt ſpace in a ſhort time, renders him almoſt independent of climate. A regular ſupply of food is the principal circumſtance that determines his habitation; and as that is procured, at different ſeaſons of the year, in very diſtant quarters of the world, you are obliged to follow his route, and examine his manners in all the remote regions through which he paſſes. To furniſh a hiſtory of birds, as complete as that of quadrupeds, muſt, on theſe accounts, neceſſarily prove the work of ages; and from theſe cauſes, *M. Buffon* juſtly aſſerts, that the number and characters of birds are ſtill in an ocean of obſcurity *.

In travelling through this multifarious group, we ſhall avail ourſelves of every light that may prevent our wandering, and freely conſult every writer of authority who has already arranged or deſcribed this part of the animal kingdom. The Natural Hiſtory of Birds comprehends two diſtinct objects: *Firſt*, the diſcovering and claſſification of every individual, and aſſigning it a name; and, *ſecondly*, The deſcribing its manners and œconomy†. The firſt, which is the moſt difficult part of the ſubject, is alſo the leaſt agreeable: it is dry, mechanical, and incomplete. The ſecond exhibits new pictures to the imagination; and, by leading to the diſcovery of final cauſes, opens delightful views of the œconomy of Nature, and of the wiſdom of Providence. Both are neceſſary to thoſe who would underſtand this ſcience in its utmoſt extent; both, accordingly, have been attempted by Ornithologiſts, in thoſe

* Hiſt. Gen. et Part. des Oiſeaux. † Goldſmith

thoſe ſyſtems which they have compoſed, in order to explain this department of nature.

When we inquire into the hiſtory of ornithology, at various periods, we find it in three different ſtages of improvement. To the firſt of theſe it was brought by *Ariſtotle* and *Pliny*, who are almoſt the only authors of antiquity who ſeem to have directed their attention to this branch of ſcience. They, however, contented themſelves with ſeizing upon the great outlines of natural knowledge; paſſing by what appeared trivial or common, they dwelt principally on whatever was new, marvellous, or aſtoniſhing †. Like hiſtorians who deſcribe the operations of a campaign, they have characteriſed the generals, but left it to meaner hands to carry the muſter-roll. Deſpiſing the minutiæ of a dry detail, they amuſe the reader, and warm his imagination, not unfrequently at the expence of truth. The moderns, who, after the revival of learning, reſumed this ſubject, have treated it in a manner totally different: They have divided birds into their different *Orders*, *Genera* and *Species*, according as they appeared analogous, either from their habits or external form. By thus claſſing together birds reſembling each other, in one diſtinct family, they have facilitated this ſtudy, and given the ſubject a ſcientific arrangement.

Their ſyſtems, though uſeful to the profound naturaliſt, prove tedious and unintereſting to the ordinary reader: They preſent to him a dry detail of names; a fatiguing repetition of colours, ſhades, ſize and ſhapes of ſimilar animals, which he may have recourſe to as a dictionary, but which muſt unavoidably diſguſt, ſhould he attempt a continued peruſal. Their ſucceſſors, in later times, with that judgment and good ſenſe which they

† Goldſmith.

they have carried into every department of ſcience, have endeavoured to unite theſe different aims. They have joined the hiſtory of their manners and economy to ſcientific arrangement: They have blended the dry details of the nomenclator with the more entertaining diſplays of the life and converſation of theſe animals, that are worthy of the philoſopher or hiſtorian.

M Belon, a *French* author, is the firſt among the moderns who applied himſelf to this ſtudy, and may be regarded as the father of ſyſtematic ornithology §. By arranging ſuch birds into ſeparate orders and families, as he deemed analogous in their manners or external characters, he exalted his ſubject to the dignity of a ſcience. Were we to judge of him by the extent of his travels in *Europe*, *Aſia*, and *Africa*, undertaken at his own expence, we could not heſitate to pronounce him an eager inquirer into nature. His work, however incomplete it may now appear, yet, conſidering the infancy in which he found the ſcience, diſplays conſiderable accuracy of obſervation, and entitles the author to no ſmall degree of reputation. If he has marked out the way, and cleared it of its moſt ſtriking difficulties, we owe him much; for it is certainly eaſier to make advances in a path that has already been trod by others, than to venture through the unexplored wild, lying ſtill in primeval confuſion.

After the year 1555, in which *Belon* publiſhed his hiſtory of birds, he was immediately ſucceeded by a long liſt of writers, who followed or improved his ſyſtem. *Geſner* in *Switzerland*, *Aldrovandus* in *Italy*, *Johnſton* in *Holland*, publiſhed each a ſyſtem of ornithology. Few additions, however, of any importance, were made to the natural hiſtory of birds, till the appearance of our countryman,

§ Briſon, Hiſt. Avium.

tryman, the Hon. *Francis Willoughby*. He ſeems to have been impelled to the ſtudy of nature by the original bent of a ſtrong genius, which his ample fortune enabled him to indulge. His travels were extenſive, and his knowledge proportioned to his ardour in the purſuit of it. Though he died at an early period, he had figured and deſcribed a greater number of birds, and with more accuracy, than any former naturaliſt. His papers came into the hands of his preceptor Mr. *Ray*, and were publiſhed in 1678. To him they are probably indebted for that excellent arrangement, which conſtitutes the chief merit of a work, which is acknowledged, at the preſent day, to be the moſt valuable on this part of the animal kingdom.

It is by his ſyſtem, as far as method and arrangement are concerned, that we ſhall be chiefly guided in the following hiſtory of birds; adopting, however, the late improvements made upon it by Mr. *Pennant*. We ſhall here ſubjoin what this author advances in favour of Mr. *Ray's* arrangement, in his preface to a ſmall treatiſe, intituled *The Genera* of Birds, which he publiſhed in 1773.

" Mr. *Ray*, and his illuſtrious pupil the Hon. *Francis Willoughby*, aſſumed *Belon's* plan; but, with great judgement, flung into their proper ſtations, and proper genera, thoſe which he had confuſedly mixed together. They formed the great diviſion of terreſtrial and aquatic birds; they made every ſpecies occupy their proper place, conſulting at once exterior form, and natural habit. They could not bear the affected intervention of aquatic birds in the midſt of terreſtrial birds. They placed the laſt by themſelves, clear and diſtinct from thoſe whoſe haunts and economy were ſo different."

Various attempts have been made to alter this ſyſtem of our countrymen. It is a diſagreeable and invidious taſk to expoſe the defects of other methodiſts, who may

have, in many reſpects, great merit. I leave this to the peeviſh malignity of the minute critics; therefore ſhall only acknowledge the ſources from which I draw the materials of the preſent work."

"Mr. *Ray's* general plan is ſo judicious, that to me it ſeems ſcarcely poſſible to make any change in it for the better; yet, notwithſtanding he was in a manner the founder of ſyſtematic zoology, later diſcoveries have made a few improvements on his labours. My candid friend *Linnæus* will not take it amiſs, that I in part neglect his example; for I permit the land-fowl to follow one another, undivided by the water-fowl, the *Grallæ* and *Anſeres* of his ſyſtem; but, in my generical arrangement, I moſt punctually attend to the order he has given in his ſeveral diviſions, except in thoſe of his *Anſeres*, and a few of his *Grallæ*. For, after the manner of *M. Briſſon*, I make a diſtinct order of water-fowl with pinnated feet, placing them between the waders, or cloven footed water-fowl and the web-footed. The oſtrich, and land birds with wings uſeleſs for flight, I place as a diſtinct order. The Trumpeter (Pſophia of *Linnæus*) and the Buſtards, I place at the end of the gallinaceous tribe: All are land-birds: The firſt *multiparous*, like the generality of the gallinaceous tribe; the laſt *granivorous*, ſwift runners, avoiders of wet places; and both have bills ſomewhat arched. It muſt be confeſſed, that both have legs naked above the knees, and the laſt, like the waders, lay but few eggs. They ſeem ambiguous birds, that have affinity with each other; and it is hoped, that each naturaliſt may be indulged the toleration of placing them as ſuits his own opinion."

To the ſix orders of the feathered race, which *Linnæus* lays down in his ſyſtem of nature, we have added three other orders, which may be conſidered as ſubdiviſions of his

his (*Anſeres et Grallæ*) ducks and waders, as explained by the following table.

TABLE of arrangement, exhibiting the different Orders of Birds, and their Correſpondence with the Linnæan *Syſtem.*

	Order.	
DIVISION I. Land-Birds.	I. Rapacious,	Accipitres of *Linnæus.*
	II. Pies,	Picæ.
	III. Gallinaceous,	Gallinæ.
	IV. Collumbine,	Paſſeres.
	V. Paſſarine,	Paſſeres.
	VI. Struthious,	Gallinæ. / Grallæ.
DIVISION II. Water-fowl.	VII. Cloven footed, or Waders,	Grallæ.
	VIII. Pinnated Feet,	Anſeres. / Grallæ.
	IX. Web footed	Anſeres. / Grallæ.

In the choice of their habitation, birds are directed by the nature of their food, and their habits of life. Though, therefore, the air ſeems to be the element in which they are deſtined to ſport; yet, as they derive their ſuſtenance from the ſurface of the earth or water, there is among them a variety apparently equal to the different ſpecies of food which theſe different elements produce. By this economy of nature, animals are infinitely more numerous than they could have been, had they been all rivals for the ſame kind of nouriſhment. Fleſh, fiſhes, inſects, grain, or vegetables, are every where to be found in greater or leſs abundance on the earth, or in the water. Accordingly, the barren deſert, as well as the cultivated field, the ſtormy ocean, and the ſmall rivulet, the moun-

tain and the plain, are all ſtored with their inhabitants, which they ſupply with food and accommodation ſuited to their natural wants.

From the food and habitation of birds, however, naturaliſts have in vain attempted to claſs them: One obvious and ſtriking diviſion nature herſelf ſeems to have pointed out, that of birds who live on land, and thoſe who live in water. It is eaſy to diſtinguiſh land from water-fowl, by their legs and feet: but an arrangement ſo comprehenſive, goes but a little way in enabling us to diſtinguiſh the different genera from each other, much leſs to aſcertain the multiplied varieties which are ſometimes to be found among thoſe of the ſame tribe. This is a work of great difficulty; and one which the moſt accompliſhed naturaliſt is perhaps unable perfectly to execute. To dip profoundly into it, would prove a taſk equally tedious and unprofitable. Upon ſuch frivolous diſcuſſions, we will not enter; conſcious that from theſe every judicious reader will withdraw his attention, and place it upon ſuch objects as promiſe more liberal amuſement, or more important information.

In detailing the hiſtory of theſe nine orders of birds above diſtinguiſhed, we ſhall give a general account of each genus comprehended under them; ſingling out for a more particular deſcription, ſuch individuals as may be deemed moſt worthy of attention, from their peculiar manners, or their ſingularity and beauty of form.

SECTION

SECTION II.—*The external Characters of Birds, &c.*

BY the foregoing arrrangment of birds, it appears, that we have deviated but little from the celebrated *Swediſh* naturaliſt *Linnæus*, whoſe reputation as a ſyſtematic writer is univerſally acknowledged. In order to aſcertain their external characters, we ſhall conſult *M. Briſſon* of the Royal Academy of Sciences at *Paris*, whoſe work is perhaps the moſt extenſive and accurate of any on this ſcience. Many of the latter years of Mr. *Reaumure's* life had been employed in collecting birds from every different quarter of the world: He left his collection to the public, under the management of *Briſſon*, who, from that copious ſource of information, publiſhed a large treatiſe, conſiſting of ſix quarto volumes, containing a deſcription of 1500 different ſpecies of birds, with accurate figures. *Buffon*, with perhaps more genius and eloquence than were ever applied to this ſcience, has given a ſtill more voluminous hiſtory of birds, but without obſerving any arrangement. In tracing their manners and economy, we ſhall avail ourſelves of his ideas of a ſubject, which he has adorned with all the elegance of ſtile, and the bright colouring of a lively imagination.

Had our countryman *Goldſmith* been as attentive to his information as to the richneſs, variety and elegance of his language, he would have rendered future attempts almoſt unneceſſary: But in endeavouring to condenſe his narrative, the chain is often broken, and from too eager a deſire to amuſe, his hiſtory frequently bears the air of a romance. To uſe his own words, "he has treated what he conceived to be an idle ſcience, in an idle manner."

ner." Mr. *Pennant*, who poſſeſſes more accuracy and better information, has amaſſed in his *Britiſh* Zoology a valuable ſtore of knowledge: but his work is too voluminous, and perhaps too dry and ſyſtematic for common readers.

Beſides theſe great ſyſtematics and hiſtorians, ſeveral authors have given treatiſes of a local nature. *White* has made us acquainted with the natural hiſtory of *Selborne; Smith* with that of the county of *Kerry*; *Marcgrave* has deſcribed the birds of *Brazil; Sir Hanſe Sloane* thoſe of *Jamaica*; and *Cateſby* thoſe of *Florida*, *Carolina*, *Virginia*, and the *Bahama* iſlands. With theſe abundant reſources, the Ornithologiſt can ſcarcely want information: His greateſt difficulty will be found in condenſing and arranging his materials, ſo as to render his narrative of moderate length, and of general utility.

Birds have always been conſidered as a ſeparate and detached claſs of animals: It is not, however, by their power of flying alone, that they have been thus diſtinguiſhed. A ſpecies of the ſquirrel, and the bat among quadrupeds, and the flying fiſh among the finny tribes, are endowed with the ſame faculty. On the other hand, birds of the ſtruthious kind, as the Dodo and the Oſtrich, from their immenſe weight, are wholly prevented from aſcending into the regions of the air by means of their wings. Still, however, birds in their external characters differ remarkably from other animals: They are diſtinguiſhable by their covering of feathers; by their wings, the inſtruments of flight; by the form of their legs and feet, and the whole of the outward ſtructure. They are deſtitute of teeth, lips, external ears, and ſcrotum: They differ alſo in many parts of their internal conformation; having no epiglottis, no diaphragm, nor urinary bladder.

The

The terms uſed by naturaliſts in the deſcription and claſſification of birds, are ſufficiently technical and obſcure: They are chiefly employed in diſcriminating theſe three parts; the head, the body and the limbs: (*caput, truncus et artus.*) Almoſt every peculiarity in the external ſtructure of birds, is adapted to the element which they inhabit, and conducive to ſwiftneſs of motion. To facilitate their paſſage through the air, the body in the fore part is ſharp, beginning with a pointed bill, and thickening by a gradual ſwell along the head and neck, till it reaches its greateſt bulk*; then falling off, and terminating in an expanſive tail. The body itſelf is ſlender, containing a cavity for reſpiration, much larger in proportion than that of other animals; a circumſtance which contributes greatly to their lightneſs; as does alſo the thin and porous nature of their bones, which are much lighter than thoſe of quadrupeds of the ſame ſize†.

The feathers, that covering which nature has provided for this claſs of the animal kingdom, are wonderfully adapted to the purpoſes intended; ſecurity, warmth, and celerity of motion. They are divided by naturaliſts into the down, the ſmaller feathers, and the quills, (*floccæ, plumæ, et pennæ*). The former are neareſt the ſkin, and in high latitudes, are a neceſſary protection againſt cold, or wetneſs. The *floccæ* are ſoft, ſhort, and unconnected; and are moſt abundant in the aquatic tribes, particularly in thoſe of the duck kind. Thoſe feathers which cover the body, and are properly the plumage of the bird, have ſmall ſhafts, and large vanes; and are never exerted or relaxed, unleſs in anger, fright, or illneſs. They are all placed ſo as to cover one another like tiles, permitting the water to run off, while they exclude the cold‡.

The

* Goldſmith's Nat. Hiſtory.

† Buffon diſcours ſur la nat. des Oiſeaus, tome 16me.

‡ Pennant's Genera of birds.

The ſtrongeſt feathers or quills are placed in thoſe parts of the body where they have moſt duty to perform. They have large ſhafts, hollow at the lower end, but filled at the upper with a pith, convex above, aud concave beneath, which ſerves to give nouriſhment to the vanes on each ſide. Theſe vanes are broad on the one ſide, and narrow on the other; each conſiſting of a number of thin *laminæ*; ſtiff, and of the nature of a ſplit quill *. The different *laminæ* are braced together by the elegant contrivance of a multitude of ſmall briſtles: Thoſe on the one ſide being hooked, and the other ſtrait, they lock into each other, and keep the vanes ſmooth, compact, and ſtrong. The vanes being thus adjuſted, and the feathers lying cloſe by each other, when ſpread, no part of them can miſs its impulſe upon the air.

As the ſlender ſubſtance of feathers is apt to be diſcompoſed by accident, or the exceſſive heat or moiſture of the atmoſphere, nature has made an extraordinary proviſion for their adjuſtment, and preſervation in a proper temperament †. Of this *Goldſmith* has given the following very accurate account. The animal is furniſhed with a gland behind, containing a proper quantity of oil, which can be preſſed out by the bird's bill, and laid ſmoothly over every feather that wants to be dreſſed for the occaſion. This gland is ſituated on the rump, and furniſhed with an opening or excretory duct; about which grows a ſmall tuft of feathers, ſomewhat like a painter's pencil. When, therefore, the feathers are ſhattered or rumpled, the bird, turning its head backward, with the bill catches hold of the gland, and, preſſing it, forces out the oily ſubſtance, with which it anoints the disjoined parts of the feathers; and drawing them out with great aſſiduity, re-

* Derham Phyſic. Theol. 336. Tab. f. 18, 19. † Nat. Hiſt. vol. V. p. 5

recompoſes and places them in due order; by which they unite more cloſely together. Such poultry, however, as live for the moſt part under cover, are not furniſhed with ſo large a ſtock of this fluid as thoſe birds that reſide in the open air. The feathers of a hen, for inſtance, are pervious to every ſhower; on the contrary, ſwans, geeſe, ducks, and all ſuch as nature has directed to live upon the water, have their feathers dreſſed with oil, from the firſt day of their leaving the ſhell. Thus their ſtock of fluid is equal to the neceſſity of its conſumption. Their very fleſh contracts a flavour from it, which renders it in ſome ſo very rancid, as to make it utterly unfit for food; however, though it injures the fleſh, it improves the feathers for all the domeſtic purpoſes to which they are uſually converted.

Next to the feathers, we are to conſider the other parts that have been reckoned deſcriptive of the generic characters of birds. The marks taken from plumage are precarious indications of the ſpecies to which they belong: the more important characters of birds are all taken by *Linnæus* from the unfeathered parts; as the beak, caruncles, noſtrils and feet: and in this principle, which he has adopted with regard to arrangement, he has been deſervedly followed by many other naturaliſts.

The bill in all birds conſiſts of two mandibles; the upper and the lower: The former is uniformly fixed, except in the genus of parrots; which nature has endowed with the power of moving the upper mandible at pleaſure, to aſſiſt it in climbing. None of the feathered race have teeth; ſome indeed have the mandibles ſerrated, as the toucans and merganſers; but theſe *ſerræ* are not immerſed in ſockets. In falcons, the baſe of the roſtrum is covered with ſkin, called the *cere*: in the turkeys

it is covered with a carneous appendage. The noſtrils of birds are generally of an oval form, placed near the baſe of the upper mandible; the organs of ſmell, in gannets, are altogether wanting.

The wings of birds, though not much conſidered in their claſſification, are by far their moſt conſpicuous inſtruments of motion; and in every genus, except the ſtruthious, they are adapted for flight, which is accompliſhed chiefly by means of the flag-feathers, called *remiges*. The largeſt of theſe, denominated *primary*, are ſituated on the extremity of the wing; and are generally eight or ten in number: The *ſecondary* are placed nearer to the body of the animal; are always ſhorter, and commonly of a different ſhape and colour. Two ſpecies of pinguins are deſtitute of theſe flag-feathers; with them the wings perform the office of fins, in ſwimming and diving. The larger feathers of the tail, naturaliſts have termed *rectrices*, from their being the director or rudder of the animal in flight; for, beſides ſerving to counterbalance the foreparts, they enable the bird to riſe, deſcend, or turn at pleaſure. They ſeldom exceed ten or twelve, unleſs in the ducks and geeſe, where they are more numerous.

Birds differ remarkably in the form of their feet, according to their manner of life. The feet have obtained various technical names, as they ſeemed fitted for perching, walking, running, ſwimming, or diving *. For the firſt of theſe purpoſes, thoſe ſeem beſt adapted who have three toes on the anterior part of the foot, and one backward, with the two outward toes partly connected by a membrane; among the walkers, this membrane is not to be found. The natatory birds have their feet either wholly

* Hence they are ſtiled in the Linnæan Syſtem, Greſſorii, Ambulatorii, Curſorii, Natatorii, et Scanſorii.

ly palmated, or pinnated, as in coots and grebes, or ſemi-palmated, as in the *American* ſpoon-bill. The parrots, woodpeckers, and other tribes addicted to climbing, have two toes forwards, and two backwards. The oſtrich, the ſwifteſt of all running birds, is in this reſpect anomolous, having only two toes.

All the external parts of birds appear to be formed for rapidity of motion in that element they are deſtined to inhabit; all contribute to facility of eſcape; the ſhape and lightneſs of the body, its covering of feathers, the large ſize of the wings, and the force of thoſe muſcles by which they are moved. From the combined operation of theſe qualities, their ſwiftneſs far exceeds that of the rein-deer or horſe, the fleeteſt among quadrupeds. Thirty leagues in one day, according to *M. Buffon* *, is the utmoſt either can travel; whereas an hawk or an eagle, he aſſerts, can traverſe a ſpace of two hundred leagues in ten hours; and in ſupport of this, he relates the ſtory from Sir *Edmund Scot*, of the hawk ſent from the *Canaries* to the *Duke of Lerma*, which returned from *Andaluſia* to the iſland of *Teneriffe* in ſixteen hours, a ſpace of two hundred and fifty leagues.

When we proceed to examine the ſtructure of the organs of ſight, we find that they are no leſs adapted to the purpoſe of celerity. In all birds, except the nocturnal ones, the head is ſmaller in proportion to the body than that of quadrupeds; their eyes, too, are more flat and depreſſed, that they may more eaſily divide the air, and make way for the body. In comparing the ſenſe of ſight in this claſs, with that of quadrupeds, it is found more quick, diſtinct, and extenſive; and the apparent exception of owls, is rather a confirmation of this fact, as the dimneſs of their ſight ariſes from the extreme ſenſibility

* Hiſt. Nat. gen. et part. Tome II. 223.

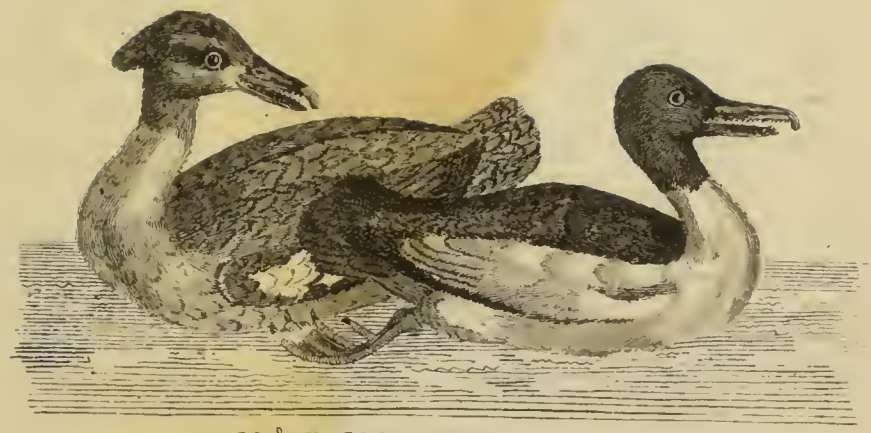
of the organ; a mark of its perfection *. The eyes of fowls ſeem indeed more induſtriouſly laboured by the hand of nature, than thoſe of other animals. Though outwardly they appear ſmall, yet both taken together, they are larger than the brain; whereas the orbit of the human eye is not the twentieth part of the brain. Anatomiſts have, beſides, obſerved a particular expanſion of the optic nerve, in this organ of birds, which renders the impreſſions of external objects more vivid and diſtinct. To protect the eye, and perhaps moderate its extreme ſenſibility, it is poſſeſſed of a *nictitating* membrane, with which it can inſtantaneouſly cover the pupil of the eye, when the eye-lids are open.

From ſuch a ſtructure of the eye, the ſenſe of ſeeing in birds is greatly ſuperior to that of other animals. Nature having deſtined them for rapid motion, has wiſely provided for their ſafety, by the acuteneſs of that ſenſe which directs it. To the ſame velocity of movement, had ſhe joined dullneſs of ſight, theſe qualities would have been contrary and incompatible; had the animal availed itſelf of the former, it muſt have been daſhed to pieces by unforeſeen reſiſtances, from the imperfection of the latter. Add to this, that acuteneſs of ſight ſeems neceſſary for procuring the animal's ſupport: An hawk, accordingly, from a height in the ſky, at which it is ſcarcely perceptible by the human eye, perceives a lark upon the ground, and darts upon it with unerring preciſion.

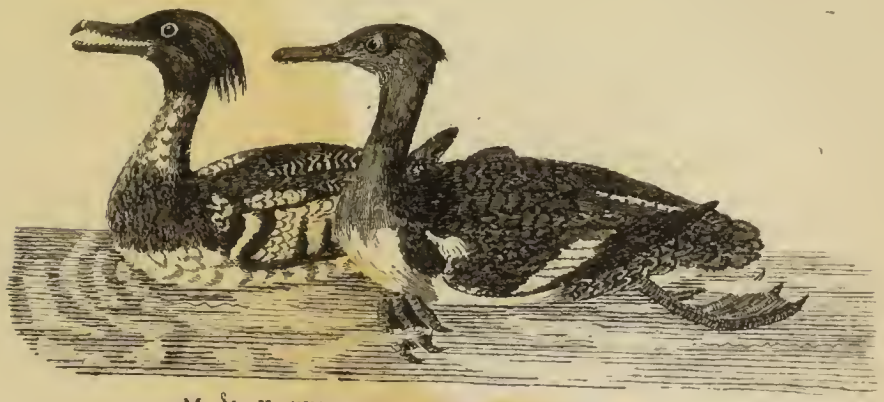
It hath been already obſerved, that all birds want the external ear; they are furniſhed indeed with apertures, which convey ſounds into the auditory canal. Their ſenſe of hearing is very acute, as may be conceived from their power of ſong, and of modulating the voice, and from the readineſs with which they repeat ſounds, and learn

* Buffon, Tome 16.

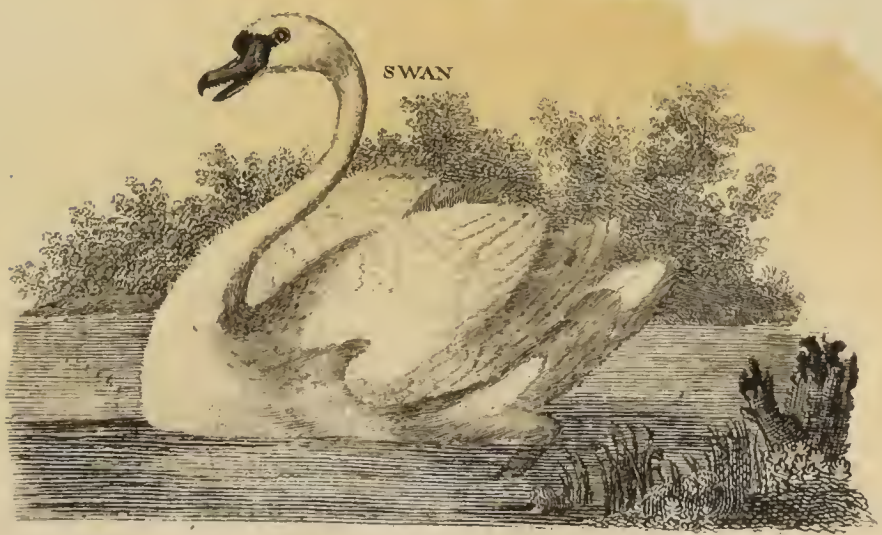
Plate L.



M. & F. GOOSANDER



M. & F. RED BREASTED GOOSANDER



SWAN

learn to pronounce words. This faculty, the bounty of nature has conferred upon them as an additional mean of ſecurity: Surrounded as they are by man, and other tribes of hoſtile animals, their ſafety greatly depends, while in darkneſs, or amidſt the thick groves, of being duly appriſed of their approach by the quickneſs and ſenſibility of this organ.

Buffon is of opinion that ſeveral of the quadrupeds are ſuperior to birds in the the ſenſe of ſmelling: In many of the latter, however, it is extremely delicate and acute. The raven and the vulture wind their prey at an immenſe diſtance, and perhaps ſurpaſs the dog or the fox: Nor are we to imagine that thoſe birds who have no external appertures in the bill, are deprived of this ſenſe, which may be communicated by the entrance of the effluvia at the mouth. It is remarked by *Goldſmith*, that in decoys, where ducks are caught, the men who attend them, univerſally keep a burning turf near their mouths, leſt the fowl ſhould ſmell their breath, and conſequently fly away. The univerſality of this practice puts the neceſſity of it beyond a doubt, and proves the extreme delicacy of the ſenſe of ſmelling in this ſpecies of the feathered creation.

Notwithſtanding this perfection of their ſenſes, birds fall as far ſhort of quadrupeds in ſagacity and intelligence, as they are diſtinguiſhed by theſe particulars above inſects and fiſhes, the ranks of animated beings immediately below them. Shy in their nature, and jealous of their liberty, they avoid the haunts of man; and with too much juſtice, view him as their tyrant or deſtroyer. Even thoſe which we call domeſtic, are much leſs ſuſceptible of ſentiments of attachment or obedience, than our other ſervants of the animal race: They render us no ſervice during their lives, and only become uſeful by their death; they

they are victims which we multiply without trouble, and ſacrifice without pity or regret *. Some of them we educate for the chace, and teach to carry their game; others we ſo far tame as to render them familiar; and by the force of habit, we almoſt make them attached to their priſons; but all theſe ſentiments are ſlight and delible, compared with thoſe which we can transfer to quadrupeds. What compariſon is there between the attachment of a dog, and the familiarity of a parrot; or between the intelligence of an elephant, and that of an oſtrich †?

There is one inſtance, indeed, in which they diſcover an aſtoniſhing docility, and ſeem to ſurpaſs that degree of intelligence which nature has allotted to their order; and that is, their faculty of imitating and repeating ſounds. Though we ſuſpend our belief of the great muſical talents, which ſome are ſaid to have acquired by education, we find many well atteſted inſtances of a delicate ear in ſome birds no way remarkable for vocal execution. Madame *Piozzi* ‡ relates of a tame pigeon, that it anſwered by jeſticulation to every note of the harpſichord. As often as ſhe began to play, it hurried to the concert, with marks of rapturous delight. A falſe note produced in the animal evident tokens of diſpleaſure; if frequently repeated, it loſt all temper, and tore her hands. In ſome birds, the ear is ſufficiently delicate and preciſe, to enable them to catch and retain a continued ſeries of ſounds, and even of words: Hence proceed their muſical powers; hence, too, their faculty of ſpeaking. Of the parrot, we have heard narrated many wonderful exertions of eloquence, which rather tend to evince the ſurpriſe of mankind

* Buffon Hiſt. gen. et part. † Buffon, Tome 16. p. 26.

‡ Letters from France and Italy.

kind at the docility of an animal ſo inſipid, than to prove any real attainment. He receives words, without underſtanding them; his voice, by its flexibility, enables him to repeat them; but he gives them back as he received them: He articulates, but does not ſpeak; for with him, articulation does not proceed from thought, the principle of ſpeech; it is merely an imitation, which repreſents nothing of what paſſes within the animal, nor expreſſes any of his affections *.

When we conſider the voice of birds, independent of the influence of man, and ſeparate what is acquired from what is natural; when we obſerve them in their wild and free ſtate, we perceive that the voice is not only modified by their affections, but that it is renewed, ſtrengthened, changed, or extinguiſhed, according to theſe, and the temperature of the ſeaſon. As the voice, of all their faculties is moſt eaſy, and leaſt troubleſome in its exerciſe, they ply it with a frequency that ſeems to border on exceſs; nor is it the females, as we might believe, that are moſt remarkable for the abuſe of this organ; among birds, they are more grave and ſilent than the males. Like the cattle, they utter cries of fear or of ſorrow; they can expreſs ſolicitude and concern for their young; but to the far greater number, nature ſeems to have denied the gift of ſong †. The ſinging of the feathered race ſeems to be the expreſſion of their happineſs, and of their ſoft and agreeable emotions; by theſe circumſtances it is produced; with theſe it varies; and when they ceaſe, it is extinguiſhed. The nightingale, on his firſt arrival in ſpring, begins not yet to ſing: he is ſilent till he has found a mate; and his ſong at firſt is ſhort, heſitating, and unfrequent; he ventures not a full, loud, and well ſupported

* Vide Buffon, Tome 16. † Ibidem.

ported note, till he ſees his female charged with the fruits of his love. During the whole period of neſtling, laying, and incubation, he grows more and more aſſiduous in his careſſes, and endeavours to relieve her cares by every charm of ſong. What proves the voice of this bird to be ſolely the expreſſion of love, is, that with that paſſion it ceaſes. The female has no ſooner begun to hatch, than ſhe ceaſes to ſing; and towards the end of June, the male becomes ſilent alſo, or expreſſes himſelf in a harſh and frightful croaking note, more reſembling the noiſe of a reptile, than his former melodious ſtrains. Every ſpecies of bird is not equally eloquent; ſome are copious and fluent in their utterance, while others are confined to a few important ſounds: No bird, like the fiſh kind, is quite mute; but ſome are rather ſilent. The notes of the rapacious are ſhrill and piercing; and in the ſeaſon of nidification, much diverſified. Ravens, beſide their loud croak, can utter a deep and hollow note, that makes the woods to echo: Doves coo in an amorous and mournful manner, and are emblems of deſpairing lovers. All the paſſarine tribes expreſs their complacency by ſweet modulations, and various melody. Aquatic and gregarious birds, eſpecially ſuch as ſhift their quarters in the dark, are very noiſy and loquacious: Their perpetual clamour prevents them from diſperſing and loſing their companions.

No birds poſſeſs greater variety of expreſſion, or a more copious language than our common poultry *. Of all the occurrences of their life, that of *laying* ſeems to be the moſt important; for no ſooner has a hen diſburdened herſelf, than ſhe ruſhes forth with a clamorous kind of joy, which the cock and the reſt of his miſtreſſes immediately adopt: The tumult catches from yard to yard,

* White's Hiſt. of Selborne, p. 242.

yard, and ſpreads to every homeſtead within hearing, till at laſt the whole village is in an uproar. As ſoon as the hen becomes a mother, her new relation demands a new language: ſhe then runs clocking and ſcreaming about; and ſeems agitated, as if poſſeſſed. The father of the flock has alſo a conſiderable vocabulary; if a bird of prey paſſes over, with a warning voice, he bids his family beware. The gallant chanticler has, at command, his amorous phraſes, and his terms of defiance: But the ſound by which he is beſt known, is his crowing; by this, he has in all ages been diſtinguiſhed as the country-man's clock or larum, as the watchman that proclaims the diviſions of the night.

Some of the gaudy birds, and particularly the peacock, have notes peculiarly grating and ſhocking to the ear; the yelling of cats, or the braying of an aſs, is not more diſguſtful. And of birds, in general, it may be obſerved, that from the ſtructure of their throat and lungs, their voice is much more loud and piercing than that of quadrupeds. The ſcreams of a peacock are heard at a greater diſtance than the bellowing of an ox, although it is hardly the fiftieth part of the ſize.

SECTION III.—*Of the Flight, Plumage, and Migration of Birds.*

IT is remarked by a ſkilful naturaliſt *, that to be a complete ornithologiſt, one ſhould be able to diſtinguiſh birds by their air, as well as by their colours and ſhape; on the ground as well as on the wing, and in the buſh as well as in the hand. For though it cannot be ſaid that eve-

* White's Hiſt. of Selborne.

ry *ſpecies* of birds has a manner peculiar to itſelf; yet there is ſomewhat, in moſt *genera* at leaſt, that at firſt ſight diſcriminates them. Put a bird in motion; and the judicious obſerver can pronounce upon it with certainty,

Nam vera inceſſu patuit.

Thus the kites and buzzards ſail round in circles, with wings expanded, and motionleſs; and it is from their gliding manner that the former, in the north of *Britain*, has obtained the name of *gleads*. There is a peculiarity in ravens, that muſt ſtrike the moſt incurious obſerver; they ſpend all their leiſure time in diving and cuffing at each other on the wing in a playful manner; and, when they move from one place to another, frequently turn on their backs with a loud croak, as if about to fall to the ground. When this accident happens, they are ſcratching themſelves with one foot, and thus loſe their centre of gravity. Parrots, like all other hook-clawed birds, walk aukwardly, and make uſe of their bill as a third foot, climbing and deſcending with ridiculous caution. All the order of gallinæ (poultry) parade and walk gracefully, and run ſwiftly; they fly, however, with difficulty, and in a ſtraight line, with an impetuous noiſe. Moſt of the ſmall birds fly by jerks, or hop when on the ground: The ſkylark riſes and falls perpendicularly while it ſings; the woodlark hangs poiſed in the air; and the titlark riſes and falls in large curves, and is melodious only while deſcending.

Several obſervations worthy the notice of the naturaliſt, are obtained from the flight of birds, and their uniform appearance in particular places at ſtated ſeaſons. A conſiderable part of the ſuperſtitions in the polytheiſm of ancient *Greece* and *Rome* had no other foundation than the accidental flights of birds, or their manner of taking their

their food. A great body of their prieſts were called *haruſpices* *, from their being employed watching the motions of theſe animals. An enterpriſe was deemed *auſpicious*, or the contrary, according as their motions were reported favourable, or otherwiſe.

But ſuperſtition apart, the experienced ſailor derives information from the flight of birds, in which he is deeply intereſted. The man-of-war bird has a very different flight at ſea, from what it has when near the land: In the former caſe, it ſoars high in the regions of the air, and its motion is ſlow; in the latter, it flies much quicker, and nearer to the ſurface of the water. Hence ſailors, by obſerving its manner of flight, can conjecture pretty nearly their diſtance from land. The phaeton ætherius is another bird whoſe appearance is uſeful to navigators. It is always found within the tropics, never venturing to the north or ſouth of either; whenever, then, this bird is obſerved, the ſeamen are with certainty informed of their being in the intra-tropical latitudes. There is alſo a bird of a peculiar nature, found always within a ſhort diſtance of the *Cape of Good Hope*, and therefore called the *procellaria Capenſis*. As the appearance of this bird indicates to the ſailors their approach to the *Cape*, it is often uſeful to the Indiamen in doubling that promontory. The procellaria pelagica, as often as it approaches a ſhip, and gets into the wake, the ſailors, by conſtant obſervation, find that they are invariably overtaken by a ſtorm. This fowl is called by the *Engliſh*, the petterel; but from its being thus a bird of bad omen, the mariners have denominated it the *devil's chicken*. In the northern parts of Scotland, the people employed in the herring fiſhery are often indebted to the larus paraſiticus, and the ſolan geeſe,

* Apparently derived from *avis* and *ſpecio*, and ſignifies obſervers of birds.

for diſcovering the ſhoals of fiſhes. The birds that feed upon herrings, are indeed the ſureſt guides of the fiſhers; both are engaged in the ſame employment; both are in queſt of the ſame object: Nature, however, to compenſate for the want of reaſon, has endowed the former with means of attaining their end, much more certain and efficacious than the lords of the creation can command, after all their boaſted improvements in ſcience and arts.

From the appearance of birds in this iſland, of the interior and more northerly regions of the world, we judge of the ſeverity of the winter, and intenſeneſs of the froſt. When the ſwans and ſnowflecks abound in the north of Scotland, they are deemed the infallible predictors of a great ſtorm. The woodcock too, and fieldfare, are the regular harbingers of winter; whereas the cuckoo and the rail never fail to announce the approach of ſummer.

From their food, their manner of life, and their locomotive powers, birds ſeem deſtined to become inhabitants of every part of the globe. The cold and barren regions of the north, and the ſultry deſerts of the warmer latitudes have equally a ſhare in ſupporting the feathered tribes; and in ſome inſtances, theſe diſtant climes become alternately the reſidence of the ſame bird at different ſeaſons of the year. Some dwell with man, and ſeem proud of becoming tenants under the ſame roof with their ſuperiors, as the ſwallow, the jackdaw, and the ſparrow. The rapacious birds, of a more ſhy and independent ſpirit, are happy in being far from the haunts of men; therefore chooſe their reſidence in high rocks; others are of an alpine nature, inhabiting the lofty mountains, as the ſnowfleck and ring ouzel. The buſtard and the grouſe prefer the extenſive fields: the whole order

of

of *paſſeres* delight in thick groves, which they enliven by their melodious ſtrains *.

The various regions which birds inhabit, ſubject them to the different extremes of cold and heat; and very remarkable effects are produced on their external characters by both. Almoſt all the birds of the warm climates dazzle the eye with their ſtrong and vivid colours †; in the temperate regions, their tints are more faint and ſhaded, and leſs diſtinguiſhed, either by their brilliance or variety. Of the various kinds which our country produces, few are remarkable for the richneſs or luxuriancy of their plumage; and of theſe few, the common cock and peacock are natives of *Aſia*: Among our quadrupeds the ſame mediocrity of colouring is obſervable; while nature has adorned the animals of both claſſes throughout the warmer regions of *America*, *Africa*, and the *Indies*, with the utmoſt ſplendor and variety of dreſs: on them ſhe ſeems to have exerted the whole powers of her pencil. It may be laid down, therefore, that heat exalts the colours of plumage, and renders them at once more vivid and beautiful: and, on the contrary, that cold deprives birds of thoſe ornaments, and diminiſhes the brightneſs of their colour. As you proceed northward, the changes are always from brown to white, and never from white to any other colour. White animals and

* A numerous claſs of fowls inhabits the waters; that element ſeems more congenial to the feathered race than to quadrupeds; the latter, a very few only excepted, univerſally avoid it, and are never ſeen to ſwim, unleſs when compelled by want or fear: On the contrary, perhaps the greater part of birds prefer the ſea, only leaving it to obey ſome of the moſt powerful inſtincts of their nature; to lay their eggs, or to hatch their young. Hence, only three or four quadrupeds are found with palmated feet; whereas we can reckon three hundred different birds provided with theſe inſtruments of ſwimming.

† Buffon.

and white birds are always moſt abundant near the arctic regions. It has been obſerved by ſome writers *, that all thoſe tropical birds, the luſtre of whoſe plumage is ſo dazzling, poſſeſs a harſh and diſcordant voice, without almoſt any inflexions: this, however, ſeems carried too far; for though muſical birds are more rare in the warm latitudes, yet their woods are not deſtitute of ſongſters, nor their thickets of harmony.

The male and female in moſt ſpecies of birds, differ very conſiderably in colour; the former is generally arrayed in the more gaudy dreſs than his mate, and differs from her ſo much, that it is probable that the greater part of ornithologiſts have been deceived by this circumſtance, and have multiplied the number of their ſpecies, by deſcribing them double. It is to be preſumed alſo, that varieties of the ſame family have been arranged as diſtinct ſpecies.

The colour of birds, from a variety of cauſes, is changeable, and ought on that account to be ſeldom admitted as a characteriſtic mark of the diſtinct ſpecies. It is found, that the colour of all birds is influenced, in ſome degree, by age: in ſome, it varies according to the ſeaſon; and in many more, according to climate. At an advanced period of life, it has been alleged that the females of ſome genera apparently changed their ſex, and aſſumed a plumage characteriſtic of the male. Something indeed analogous to this is diſcernible among the human ſpecies, in thoſe copious beards that are ſeen on ſome old women after the period of fecundity. The ſnowfleck is an example of the influence of ſeaſon upon colour: And thoſe numberleſs birds of the arctic regions perfectly

* Buffon and Goldſmith.

perfectly white, among which no ſuch whiteneſs prevails after their appearance in more temperate climes, ſerve to illuſtrate the powerful effects of climate, with regard to this particular.

From the flight and plumage of birds, we next proceed to examine their migrations from one country to another at different ſeaſons of the year. There is no circumſtance in their hiſtory which has more engaged the attention of naturaliſts than this; and there is, perhaps, none in which they have been leſs ſucceſsful. In the ſhort detail of this ſubject, which we here intend to give, we ſhall be guided chiefly by the ideas of Dr. *Walker*, profeſſor of natural hiſtory in the univerſity of *Edinburgh*, whoſe extenſive acquaintance with many branches of natural knowledge is well known. In order to guide us through this dark reſearch, we ſhall divide birds into ſuch as are ſtationary, migratory paſſengers or wanderers. The firſt claſs comprehends a great number of our land birds; who, though they have ſo much to fear from man, and from each other, are ſeldom ſcarred away from their accuſtomed haunts, although they are perfectly fitted for a wandering life; and though, by the eaſe and rapidity with which they can change their place, they are enabled to gratify their deſires, however diſtant the object; yet a great number remain contented in the diſtricts where they were bred, and ſeem to confine the gratification of their appetites greatly within the limits of their endowments. The eagle, the crow, the rook, and the ſparrow, if undiſturbed, never leave their native haunts: The blackbird ſtill frequents its wonted hedge; and the redbreaſt, though ſeemingly mild, claims a certain diſtrict, from which he ſeldom moves, but expels from his territory, all that are inferior in ſtrength or courage, without diſtinction, and without pity.

The

The powerful calls of nature, however, drive many birds annually from their native country in queſt of food, of a warmer climate, or of a ſecure aſylum, while employed hatching and rearing their young. It was formerly believed, that the changes of heat and cold were the cauſes of the migrations of birds; it is more probable, however, that thoſe daring and adventurous journies which might even intimidate human perſeverance, are occaſioned by a ſcarcity of food, or by the want of a ſecure aſylum, during incubation, from the perſecution of man. In general, our ſummer birds of the migratory kind come from the ſouth; while thoſe that remain with us during the winter months, can almoſt all be traced to the colder regions of *Norvegian*, *Swediſh*, and *Ruſſian Lapland* *.

We are informed by *Linnæus*, that *Lapland* abounds, during ſummer, with enormous quantities of inſects; and this is more or leſs the caſe with all the north of Europe. The inſectivorous birds, therefore, ſuch as the cuckoo, goatſucker, and all the tribe of ſwallows, during the warm months, are there abundantly ſupplied; but on the cloſe of that ſeaſon, when their favourite food begins to fail, they regularly depart for the milder climes of the ſouth. Among the quails and the ſtorks, this ſeems a preconcerted undertaking. They aſſemble together for ſome days before their departure; take different ſhort flights, as if to train their young for the journey; and by an odd kind of chattering, ſeem to debate upon the plan of their route. When theſe preliminaries are ſettled, they all take their flight in a body, that they may more eaſily oppoſe their enemies; they often appear in ſuch numbers, that to the mariners at ſea, they frequently

* Flora Laponica.

ly ſeem like a cloud that reſts upon the horizon. The boldeſt, ſtrongeſt, and by far the greateſt number, probably make good their intention; but many there are, who, not appriſed of their own want of force for the arduous undertaking, grow weary in the way, and, quite ſpent by the fatigues of their flight, drop down into the ſea, or fall upon the decks of ſhips, where they become equally a prey, to the ſailors, or the waves. The ſummer birds of our country are the different ſpecies of ſwallows, the rail, lapwing, goat-ſucker, ring ouzel, and green plover. It is far from being exactly aſcertained where each of theſe genera retires during winter; but it is probable the greater part reſort to *Africa*, or to the more ſouthern latitudes of *Europe*.

With regard to the winter birds, which migrate from us in ſummer, the moſt remarkable are the woodcock, the fieldfare, the red-wing, and ſnow-fleck. Of the firſt genus, the far greater part ſeems to make an annual voyage to *Britain* and *Ireland* from *America*. On the weſtern ſhores of theſe iſlands, they are far more numerous than on the eaſtern; and on the weſt of *Ireland*, they are in the proportion of ten to one that is to be found on the coaſt of *Britain*. After their long flight acroſs the *Atlantic*, they are ſo much exhauſted, that they are frequently caught with the hand on their firſt arrival. In farther confirmation of this opinion, woodcocks are known to breed in great numbers in *Canada* and *Cape Breton*, during ſummer; they leave both countries in the month of September, and return again in ſpring, nearly at the period they are found to deſert *Britain*. To this we may add the obſervations of ſailors, who have actually ſeen them at ſea paſſing from the weſt, towards land on the coaſt of *England*, during the fall. It is not im-

probable that ſome of the woodcocks on the eaſt coaſt may come from the North of *Europe*. They breed in *Norway* and *Ruſſia*, and no doubt may migrate to theſe ſhores during winter: All the reſt of our winter birds, we know, are natives of theſe countries: The woodcock alone is from the weſt, and its migrations have this farther peculiarity, of being ſolitary, and not in flocks, like the ſtorks and ſwallows.

Among the winter birds of *Britain*, we muſt alſo rank that vaſt quantity of water fowl that frequents our ſhores: Of theſe, it is ſurpriſing how few are known to breed here. The cauſe that principally urges them to their long journies into the northern regions, ſeems to be not merely the want of food in this country, but the deſire of a ſecure retreat *. Our iſland is too populous for birds ſo ſhy and timid as the greateſt number of theſe are. When great part of the country was a mere waſte, an uncultivated tract of woods or fens, many ſpecies of birds which now migrate, probably remained with us in ſecurity throughout the year. The great heron, and the crane, that have now forſaken this country, are ſaid to have bred familiarly in our marſhes, and by their numbers peopled our fens. Their neſts, like thoſe of moſt cloven-footed water-fowl, were built on the ground, and expoſed to every invader: As rural economy increaſed, theſe animals were more and more diſturbed by the encroachments of the huſbandman; till, after a long ſeries of alarms, they have been obliged to ſeek, during ſummer, ſome lonely habitation, at a greater diſtance from their tyrants and deſtroyers.

Of the numerous ſpecies of the duck kind, we know of no more than five that breed here; the tame ſwan and gooſe,

* Pennant's Brit. Zool. p. 513. 8vo edit.

goose, the ſkeldrake, the eider duck, and a ſmall number of the wild ducks. The reſt contribute in forming that amazing multitude of water-fowl, which annually migrate from the ſouthern parts of *Europe* to the woods and lakes of the dreary regions of *Lapland*: There they perform the duties of incubation and nutrition in perfect ſecurity; and from theſe vaſt and ſolitary retreats, they iſſue in September, and diſperſe over the whole of *Europe*. There are few of this numerous genus, who, in obedience to the firſt great dictate of nature, may not be traced flying to the arctic regions, a country of lakes, rivers, ſwamps and mountains: There the thick and gloomy foreſts not only afford them ſhelter and ſecurity, but alſo, by keeping the ground moiſt and penetrable, afford the ſnipe, woodcock, and other ſlender-billed birds the means of collecting their food; while the web-footed birds find abundance in the *larvæ* of inſects, which are there depoſited in vaſt quantities on the waters *.

There the days are long; and the beautiful meteorous nights afford them every opportunity of collecting ſo minute a food †, which is probably more grateful than any other, and which the all-bountiful Creator has ſpread for them ſo abundantly in the wilderneſs. It is therefore no longer a matter of aſtoniſhment, that ſuch vaſt numbers of fowl ſhould deſcend from theſe regions on the approach of winter, numbers which far exceed the army of Xerxes, and which *Linnæus* obſerved for eight whole days and nights, to cover the ſurface of the river *Calix*, as he proceeded along its banks ‡.

Theſe migrations generally commence in the middle of September, when they quit their retreats to diſperſe over

* Amæn. Acad. iv. 122.

† Oeuvres de M. de Maupertius, III. 116.

‡ Flora Laponica, 273.

Europe: The order of their flight is pretty remarkable; they either follow each other in a long line, or march in an angular form, the two lines meeting each other at a ſharp point. The bird which leads the van, cleaves the air, and facilitates the paſſage of thoſe that follow: when fatigued in this laborious ſtation, he falls back into one of the ſide files, and is replaced by another, who leads on the whole body in his place. With us, they make their appearance about the beginning of October; circulate firſt round our ſhores; and, when the froſt compels them, betake themſelves to our lakes and rivers. There are ſome of the web-footed fowl of hardier conſtitutions than others; theſe endure the ordinary winters of the northern climate, but when the cold reigns there with more than common rigour, they repair for ſhelter to theſe kingdoms. Hence the divers, the wild ſwan, the ſwallow-tailed ſkeldrake, are not conſtant viſitors; their appearance is regulated by the ſeverity of the winters in their native abodes.

That animals ſo dull and irrational ſhould be able to accompliſh ſuch long journies, ſhould know where to direct their courſe, or when to undertake it, has been a matter of juſt ſurpriſe. It is probable they are guided in this, as in every thing elſe, by the ſtrong impulſes of an inſtinct under which they ſeem wholly paſſive. Their accuſtomed food no ſooner begins to fail, or the climate to be diſagreeable, than they meditate a retreat to better accommodations. In migrating birds, the change of reſidence is a kind of natural want, which manifeſts itſelf ſtrongly, even when in a ſtate of captivity. At the two ſeaſons of migration, the quail, although confined, diſcovers the utmoſt inquietude; leaves nothing unattempted to procure liberty: and the violence of its efforts to

eſcape,

eſcape, often occaſions its death. Impelled, then, by ſo powerful an inſtinct *, it is probable that birds obey its call, without foreſeeing the advantages to be gained by a removal, or anticipating the dangers of encountering the winter in the ſame country. They ſeem not to have any recollection of thoſe places where they ſpent former ſeaſons: They cannot poſſibly ſee the countries where they are to take up their abode, from their immenſe diſtance, and the rotundity of the globe: They appear to be guided by the climate, rather than the country; and ſo ſoon as they find the former ſuited to their wants, they are determined in their choice of the latter.

The variety of opinions which naturaliſts have adopted concerning the departure and winter reſidence of our ſummer birds, fully evinces the obſcurity of this part of their hiſtory. It is univerſally agreed, that the ſwallows in every part of *Europe*, regularly diſappear before the commencement of winter; and the moſt general and probable opinion is, that they remove beyond the Mediterranean to the warmer climate of *Africa*, to ſpend the winter in a country where they find a continuance of their natural food, and a temperature of air ſuited to their conſtitutions. In confirmation of this opinion, Mr. *Adanſon* aſſerts, that during his long reſidence at *Senegal*, he conſtantly obſerved the ſwallows arrive there about the ſame time that they leave *Europe*. They have been frequently ſeen by ſailors alighting on the rigging of ſhips, to reſt themſelves during their long paſſage from the one continent to the other. They are obſerved, too, like the quails and ſtorks, to collect together in large flocks for ſome days before their departure; after which, they regularly diſappear.

While

* Buffon, tome 16.

While the annual migration of the houſe-ſwallow ſeemed thus aſcertained by facts, obſervations, and analogy, another opinion has been formed, and with ſome appearance of evidence, that they paſs the winter in a dormant ſtate, in rocks, banks, and even in lakes, at the bottom of the water. This notion has lately been ſupported by authors of credit and reſpectability: Some northern naturaliſts poſitively aſſert, from their own knowledge, that they have been dragged in nets from the bottom of lakes, in a torpid ſtate. *Mr. Collinſon* * has given the evidence of three gentlemen, eye-witneſſes to numbers of ſand martins being drawn out of a cliff on the *Rhine*: and the Honourable *Daines Barrington*, in his treatiſe on the migration of birds, aſſerts, that they do not fly over any large ſurface of water, but reſide under it all winter in a ſtate of hybernation.

Several of our countrymen have given credit to the ſubmerſion of ſwallows: A *German* author † patroniſes the doctrine ſtrongly, and gives the following account of their retreat, which he received from his countrymen. They aſſert, that the ſwallows aſſemble in numbers, on a reed, till broken by their weight, it ſinks with them to the bottom; and as a prelude to their immerſion, they ſing a dirge of a quarter of an hour's length: That others would unite in laying hold of a ſtraw with their bills, and thus plunge down in ſocial compact into their ſubaqueous retreat; others again would form a large maſs, by clinging together with their feet, and thus commit themſelves to the deep. It is related by *Olaus Magnus*, archbiſhop of *Upſal*, that when the fiſhermen diſcover ſuch maſſes, by thawing the birds at a fire, they bring them

* Phil. Tranſ. Vol. 53. p. 101.

† Klein hiſt. avium, p. 205.

them to life; but owing to a premature and forced revival, they continue but a ſhort time to enjoy it.

It would be offering an inſult to the reader's underſtanding, to detain him with a particular confutation of opinions, the bare mention of which is ſufficient to give him a proper idea of their validity. From ſome experiments made by *M. Buffon*, it appears, that the houſe-ſwallow, at leaſt, is incapable of ſubſiſting in a benumbed or torpid ſtate. Thoſe which he placed in an ice-houſe uniformly periſhed, and gave no ſymptoms of revival on the application of heat. That naturaliſt, however, ſuppoſes that there may be ſome other ſpecies of ſwallow capable of ſuch a ſtate of hybernation: The celebrated anatomiſt Mr. *John Hunter* aſſerts, that in ſwallows, the organs of reſpiration are very differently formed from thoſe of the animals that ſleep during winter; and he juſtly condemns the opinion of any terreſtrial animal being able to ſupport life for any length of time under water *.

Although there are abundance of lakes in Britain, yet there is no well atteſted inſtance of ſwallows in a ſtate of torpor and immerſion: Till ſuch is found, we are ſurely excuſeable in ſuſpending our belief. What may have given riſe to the above opinions is, that there remain annually ſome birds of later flights, who, unable to bear the fatigues of ſo long a voyage, are found deſtroyed by the rigours of winter. If their neſts have, by any accident, been demoliſhed, they are known to lay a ſecond, and ſometimes a third time; not being able to carry off, at the uſual time, this tender offſpring, rather than abandon them, they prefer ſuffering with them the inclemency of the ſeaſon, and certain death.

Beſides

*Pennant's Zool. 253.

Beſides thoſe birds that remain ſtationary in the country during the whole year, and thoſe that regularly migrate at particular ſeaſons, there are ſome that may properly be ſtiled *paſſengers*. By this title is underſtood, ſuch as are found in a particular country, only for a ſhort time, as they paſs from their ſummer to their winter reſidence. In *North Britain*, the king's fiſher, and *Bohemian* chatterer come under this deſcription. A fourth claſs of birds have been denominated *wanderers*, from their paſſing alternately from one part of the ſame country to another, as induced by the weather. The curliew paſſes the winter in the vicinity of the ſea; and in ſpring repairs regularly to the hilly country, where it paſſes the ſummer in incubation, and rearing its young. At the end of ſummer, theſe birds are ſeen again repairing in groups of three or four families to their winter quarters upon the ſhores. Two or three ſpecies of gulls alſo leave the ſea, and on the approach of ſtormy weather, take up their abode in the lakes of the interior parts of the country. Thoſe birds that are obſerved far from land, may alſo be termed wanderers; ſcarcely a ſhip croſſes the Atlantic, in which the ſailors do not ſee ſome of them perching upon the rigging; it is to be regretted that men of this profeſſion ſeldom poſſeſs curioſity in a degree proportioned to their opportunity of gratifying it, otherwiſe the hiſtory of birds of paſſage might have derived much illuſtration from their diſcoveries.

In the migration of many birds, there are peculiarities worthy of our notice. Some emigrate from a country to which they never again return; and of this we have a remarkable inſtance in the magpie. It is not above ſeventy years ſince a ſingle individual of that ſpecies was ſeen in Ireland. At that period, they ſeem to have made a partial

a partial migration from *Scotland*; and they are at preſent as numerous in the former as the latter country. The ſame ſpirit of colonization has been remarked among the wood larks; ſome diſtricts of the country being now frequented by them, where they formerly never appeared. It is obſervable, that ſome migratory birds leave a country one year, in which they are ſtationary in another: Thus the common wild duck remains in *Sweden* during a temperate winter; but emigrates in a ſevere one. This ariſes from a very urgent motive, the want of food; and from the ſame cauſe, it is probable, that the wild gooſe, which in *Sweden* is only a ſummer bird, is ſtationary in the north of *Scotland*. The ſky-lark is permanent the whole year in *Scotland*, although it is a bird of paſſage in *Minorca*: In *England* alſo, the ſnipe is migratory, but ſtationary in *Scotland*.

Some birds migrate in queſt of a particular kind of crop. In *Cuba*, the rice-bird is found in prodigious numbers during the ſeaſon of that crop: The rice is no ſooner gathered there, than it removes to *Carolina*, and meets the harveſt in that country, where it remains till the rice ſeaſon is paſt. It is to be remarked alſo of this and ſeveral other ſpecies of birds, that the male and female ſeparate during the time of migration. Of the rice bird, we are informed, that it is only the females that migrate to *Carolina*. In *Sweden*, a ſpecies of duck alſo is found, of which the males leave the country at the time of incubation, and do not return till the pairing ſeaſon. A farther peculiarity in ſome migratory birds, is their obſerving a different route while going to winter quarters, from that by which they return. The only certain example of this is the pigeon of paſſage in *North America*. In its paſſage from *Canada*, where it breeds

in ſummer to *Carolina*, it perches upon the trees in *Virginia* during the night. Many of the branches are found broken to the ground by the weight of the immenſe multitudes that perch upon them; a circumſtance which marks their route to the people of the interior country, who ſupport themſelves by killing them. By this means their progreſs may be traced with great facility from morning till night, during their whole journey; but in their return to *Canada*, in ſpring, their track is altogether unknown.

SECTION IV.—*The Food, Longevity, Diſeaſes and Fertility of Birds.*

WHEN we compare birds with the four-footed animals there are many circumſtances with regard to their ſubſiſtence, in which they ſtrikingly reſemble each other: The different kinds of food deſtined to be the ſupport of the various tribes of both claſſes of animated beings, points out a ſtrong analogy between them, and impreſſes the mind with an idea of the uniformity of the general plan of nature. There are among birds, as among quadrupeds, ſome that are carnivorous; and others, whoſe food conſiſts of fruits, grain, inſects, or vegetables. The ſame phyſical cauſe which produces in ſome quadrupeds the neceſſity of devouring fleſh, and other ſtrongly nutritive food, ſubſiſts alſo among birds. The carnivorous tribes in both have but one ſtomach; and the whole of their inteſtines are formed on a ſmaller ſcale, than in thoſe whoſe nouriſhment is grain or fruit. The crop in granivorous

nivorous birds, and the paunch which correſponds to it in ruminating animals, are generally wanting in the rapacious kinds: By the largeneſs of this inſtrument of digeſtion, the former are capable of ſwallowing a much greater quantity of food, and can thus compenſate for the plainneſs and ſimplicity of its quality.

The diſpoſition and habits of all animals are ſtrongly influenced by their manner of ſubſiſting, and the nature of their food: Among birds, there is obſervable the ſame variety as in quadrupeds; for in both, the cauſes of it are ſimilar. The noble and generous eagle ranks among the former, as the lion among the latter: while the cruel and inſatiable vulture ſeems to correſpond with the tyger in ſavage rapacity. The kites, the buzards, and the ravens, are the hyœnas, wolves, and jackals of birds; while the peacocks, turkeys, and all the gallinaceous tribes, repreſent the oxen, ſheep, goats, and other ruminating quadrupeds: The manners of the latter are more mild and gentle than thoſe of the rapacious kinds, and their fleſh more ſalubrious and palatable.

It appears, however, that the food of birds is, upon the whole, more various than that of quadrupeds; and that each ſpecies is leſs confined in its choice. Nature ſeems to have conſigned to them for food, every animal, and every vegetable; and among the former are comprehended a great variety of inſects and reptiles, which quadrupeds generally diſdain. As their ſenſe of taſte is far from being delicate, they frequently ſupply the deficiency of one kind of food by another; the hen and the turkey almoſt indiſcriminately devour fleſh and grain. Their organs of taſte are cartilaginous, and poſſeſs hardly any ſenſibility; their food is inſtantly ſwallowed without maſtication. From theſe circumſtances, it ſometimes happens, that inſtead of nouriſhment, they devour poiſon.

Hence the attempts of *Frisch* and some naturalists to arrange birds according to the nature of their food, have proved equally unsuccessful and injudicious; never can we ascertain the nature of any animal by a single habit alone; the more numerous the characters that are selected for its discrimination, the less imperfection will be found in its arrangement *.

As birds want the power of masticating their food, the formation of the stomach of the granivorous orders is admirably contrived to supply that deficiency. That office, which in quadrupeds is performed by the teeth, is in them transferred to the gizzard; which, by its strong muscular texture, is capable of being so forcibly contracted as completely to grind the hardest grain. This power of the gizzard is augmented by means of small pebbles which the bird swallows along with its food; when aided by these, the hardest of substances, even metals themselves, are corroded, and unable to resist its force. Pieces of coin have been introduced into the stomachs of birds; and it has been uniformly found that their weight is considerably diminished, after being exposed to the violent trituration which they produce.

As birds are destined to move through the light medium of the air, they are far inferior both in weight and magnitude to the quadrupeds; the largest bird, the ostrich, bears no proportion to the elephant; nor does the humming bird, which nature has placed at the other extremity of this class, nearly approach to the size of a mouse. Nature, as she approaches near the confines of each class, confers more and more of the properties of the adjoining one on each species, till at last they so nearly approximate that she seems doubtful in her operations. The ostrich, placed

* Buffon hist. gen. et particuliere des oiseaux

placed at the extremity of the birds, ſeems in many reſpects nearly allied to a ſuperior order: Seemingly covered with hair, and incapable of flight, he makes near approaches to the race of quadrupeds; while the ſmall humming bird, of the ſize of an humble bee, and ſucking like it the nectaria of flowers, ſeems to be degraded nearly to the rank of an inſect.

From the ſmall ſize and ſlender conformation of birds we might be led to ſuppoſe, that the duration of their life would prove but ſhort; the reverſe, however, of this is the caſe: Their longevity far exceeds that of quadrupeds, and even of man himſelf; and it ſeems neither to obſerve the ſame proportions, nor to be guided by the ſame rules. In theſe animals, the duration of life bears a certain proportion to the period at which they arrive at their full growth and maturity; nor are they capable of procreation till their ſize is nearly completed. In birds, the growth is more quick, and the period of procreation much earlier; many of them run as ſoon as they are excluded from the ſhell, and fly at the end of four or five weeks: A cock is capable of procreation at ſix months, and arrives at maturity in a year: If then the duration of human life, and that of quadrupeds, is only ſix or ſeven times longer than the period at which they arrive at maturity, a cock ſhould live only ſix or ſeven years; his longevity, however, is far greater, ſome being known to live upwards of 20 years. A linnet has been known to live 14 years; bulfinches 20; parrots are ſaid to live 40 years; geeſe four ſcore: Of ſwans, eagles, and ravens, there are various reports; ſome have aſſerted that they lived 100 years, others double, and even three times that period; but of this there are few well atteſted examples*.

The

* Encyclopédie, a l'article oiſeau.

The longevity of birds, M. *Buffon* imputes to the texture of their bones; the hardneſs and ſolidity of which, he aſſigns as the general cauſe of death in all animals: Thoſe of birds being lighter and more porous in their conformation, preſent fewer obſtacles to the vital functions; and nature thus finding more room for the functions of life, carries it on to a more diſtant period. The leſs ſolid the bones are, the more diſtant, he alleges, will be the period of death; hence a greater number of women than men arrive at extreme old age *.

From the extraordinary longevity of birds, it is probable they are ſubject to few diſeaſes: Their annual molting, if it can be conſidered as a diſeaſe, is perhaps the only one to which they are univerſally liable. As quadrupeds caſt their hair, ſo all birds, every year, obtain a new covering of feathers. This is what is termed their molting; during its continuance, they always appear ſickly and diſordered; the boldeſt loſe their courage; none produce young, and many die under this ſevere operation of nature. No feeding can maintain their ſtrength, or preſerve their powers of reproduction. A hen, however plentifully fed, will then ceaſe to lay; the nouriſhment which formerly went to the production of young, is now conſumed and abſorbed, in adminiſtering a ſupply to the growing plumage †.

The molting of birds, even when left to the operation of nature, is a ſevere malady; its fatal effects, however, have been greatly increaſed by the interference of man, in endeavouring to beſtow artificial accompliſhments on thoſe birds which he reduces into captivity, for the ſake of the beauty of their colours, or the melody of their ſong. The bird catchers in the vicinity of *London*, whoſe

* Hiſtoire gen. et part. des oiſ. tom. 16.

† Goldſmith's Nat. Hiſt.

whoſe employment conſiſts chiefly in gratifying the whimſical and capricious, have invented a method of accelerating the ſeaſon of molting, by which it is pretended that birds are improved both in their ſong and beauty §. To effect this, they ſhut them up in a dark cage, cloſely wrapt up with woollen cloth, allowing their dung to remain and increaſe the heat of the cage: In this ſtate of confinement, which continues for a month, they are only now and then ſupplied with water, the putrid air, and the fever which it occaſions, depriving them of all appetite for food. By this violent operation, which is termed *ſtopping*, an artificial and premature molt is produced, at the expence of the lives of many of the ill-fated creatures who are ſubjected to ſo unnatural a regimen. The price of a ſtopped bird riſes in proportion to the danger attending it; for it is pretended that its note is not only louder, and more piercing than that of a wild one; but that its plumage is alſo more vivid and beautiful: In ſhort, that there is as much difference between a wild and a ſtopped bird, as between a horſe kept in body clothes, and one at graſs.

The manner in which nature performs this operation, as it is ſlower in its progreſs, ſo it is leſs frequently attended by the ſame fatal conſequences. When the feathers of birds have attained their full ſize, the pen part neareſt the animal grows harder, and thicker in its ſides, but ſhrinks in its diameter; in conſequence of the firſt of theſe proceſſes, it draws gradually leſs nouriſhment from the body of the animal; and by its decreaſe in ſize, it grows more looſe in the focket, till at length it falls. "In the mean time, the rudiments of an inſipient quill "are forming below: The ſkin formed into a little bag which

§ Pennant's Brit. Zool. p. 332.

which is fed from the body by a ſmall vain and artery, " and which every day increaſes in ſize, till it is pro- " truded *." While the one end vegitates into the beard or vane of the feather, that part attached to the ſkin is ſtill ſoft, and receives a conſtant ſupply of nouriſhment, which is diffuſed through the body of the quill by the artery and vein. When, however, the quill is come to its full growth, and requires no farther nouriſhment, the vein and artery become gradually leſs, till at laſt the ſmall opening by which they communicated with the quill is ſtopped, and the circulation ceaſes. The quill, after it is thus deprived of new ſupplies, continues for ſome months in the ſocket, till at laſt it ſhrinks, and makes room for another repetition of the ſame proceſs of nature.

The molting ſeaſon commences at the end of ſummer, and the bird continues to ſtruggle under the malady for a conſiderable part of the winter; thus, by the wiſe appointment of nature, the appetite of the animal is leaſt craving, while its proviſions continue to be moſt ſcanty. It is not till the return of ſpring, when the feathers have attained their full growth, that the abundance of food, aided by the mildneſs of the ſeaſon, reſtore it to its full vigour. It is then, when every vegetable ſprings afreſh, that inſects are awakened from their torpid ſtate; and that nature, teeming with an increaſe of life, ſeems diſpoſed to continue and transfuſe it, by the reproduction of every ſpecies of her offspring.

" Among the feathered race, accordingly, the return of ſpring is the beginning of love. Thoſe vital ſpirits which ſeemed locked up during winter, begin then to expand; vegetables and inſects ſupply abundance of food;

* Goldſmith's nat. hiſt. vol. V. p. 20.

food; and the bird having more than ſufficient for its own nouriſhment, is impelled to transfuſe life, as well as maintain it. The return of the ſexual paſſion among birds is announced by the frequency, loudneſs, and variety of their notes: Hence M. *Buffon* concludes, that there is in theſe animals a ſtrong connection between the organs of generation and thoſe of the voice; and that the delightful harmony of the grove, ſo much admired by man, is the natural expreſſion of their loves. The language of the male, in this ſeaſon of enjoyment, is moſt loud and copious; to his calls of allurement the female expreſſes her aſſent in more feeble and interrupted notes. In quadrupeds the ſexual appetite is ſtrong, but the deſires ariſing from it are as fleeting as they are impetuous: While that paſſion in birds is diſtinguiſhed by tenderneſs, attachment, and conſtancy. Except the gallinaceous, and a few other tribes, birds are all monogamous; and for the ſeaſon at leaſt, the compact is obſerved with unbroken fidelity. Among quadrupeds, there are but few inſtances of conjugal fidelity, and ſtill fewer of parental concern in the males, for their progeny; whereas among birds, examples of the contrary are rare. Nothing can exceed the affection and aſſiduity of the monogamous birds, but their mutual tenderneſs and ſolicitude for the fruits of their love. The female no ſooner begins the conſtruction of her neſt, than ſhe is aſſiſted by her uxorious mate: Their mutual labour produces a mutual attachment, which is ſtrengthened and confirmed by ſucceeding toils and multiplied cares. During the whole period of incubation, the male carries food for his female, or ſoothes her by his ſong: ſometimes he even ſupplies her place in her abſence, or joins her in the neſt, to increaſe the heat, and ſhare the fatigues of her ſituation

But the pleaſures of love appear dull in their effects, when compared with the force of thoſe attachments which commence after the excluſion of the young. Their birth ſeems a new ſource of tranſport, and a freſh bond of union; their maintenance and protection is another employment requiring the joint efforts of both parents. Thus far the manners of birds repreſent what takes place in every worthy family; mutual love and parental affection; and theſe ſlender beings whom nature ſeems to have produced in ſportive mood, may, nevertheleſs, be regarded as a ſober and virtuous race, from whom we may derive moral inſtruction, and an uſeful example.

This conjugal fidelity, ſo remarkable among birds, ſeems to ariſe from the neceſſity of both male and female co-operating in building their neſt, and providing for their young. It is only found to prevail in the woods and fields, where nature is allowed to remain in unadulterated ſimplicity: wherever man interferes, he influences and changes the ſtrongeſt propenſities of their nature. The poultry in our yards, who are exempted from the labour of building a neſt, and of providing for their ſecurity and ſuſtenance, either indulge in promiſcuous venery, or are diſtinguiſhed by the ſlightneſs of their attachments, and the inconſtancy of their love. The females among them have the whole charge of rearing and protecting the young; an office for which they are well qualified by the tender ſolicitude which they diſplay, and that courage bordering on fury, by which they are at that ſeaſon animated.

In general, birds poſſeſs a much greater degree of fertility than quadrupeds. Weak and defenceleſs as they are, and ſurrounded by a thouſand enemies, they are liable

able to ſo many accidents, that without this wiſe proviſion of nature, the whole race muſt have inevitably been extinguiſhed. Thoſe birds alſo which are moſt uſeful, or eaſily deſtroyed, are always moſt diſtinguiſhed by their fertility. While the eagle, and ſome of the rapacious birds, lay only from two to four eggs, the grous, partridge, and other gallinaceous tribes, whoſe fleſh is palatable, and who are therefore ſo often made the prey of man, and their own ſpecies, lay from nine to eighteen. Thus, the rapacious animals are abridged by ſterility; while thoſe that are eaſily deſtroyed are as eaſily repaired; for wherever nature has denied the power of reſiſtance, ſhe has compenſated the want by the fertility attending procreation. The power of generation is greatly increaſed, and the period of fecundity prolonged among the poultry kind, by domeſtication. Want, cold, labour, and inquietude, diminiſh in all animals both the effects and the power of procreation; they are conſtantly more productive in proportion as they are well fed, and regularly ſupplied with accommodation. Thoſe who are left in freedom, who are continually expoſed to ſcarcity of food, fear, and all the inconvencies of an independent ſtate, appear not to exert to their full extent their power of generation; they ſeem to huſband its effects, and accommodate them to the exigencies of their condition. A bird who has completed her uſual number of eggs, immediately ceaſes to lay. All the reſt of the ſeaſon ſhe employs in incubation, and rearing her young. If, however, by any accident, her neſt is deſtroyed, ſhe conſtructs a ſecond, or even a third, and will lay as often. Duty ſeems here to controul paſſion, and attachment to gain the aſcendant over love. The common hen, whoſe eggs are conſtantly carried away, does not begin to hatch

till her power of procreation is exhauſted; and by laying upwards of an hundred eggs in a ſeaſon, diſplays the great extent to which the fertility of birds may be carried.

It is probable, that the fertility of all the different birds capable of domeſtication, might be increaſed by that means. Our common poultry, in their wild ſtate, are ſaid not to be more proliſic than the partridge or pheaſant. The abundant nouriſhment with which we ſupply them, appears to be converted into the materials of fecundity, and to increaſe their power of propagation.

Section V.—*The Neſtling and Incubation of Birds.*

After fecundation, the female begins to lay; but it is only ſuch eggs as have been impregnated by the male, that are proliſic; thoſe that have been produced without previous connection with him, are always addled by incubation: This is ſaid to be almoſt uniformly the caſe with one of the two eggs laid by the female eagle. The ovation of birds has been conſidered as an important part of their hiſtory. *Klein* has publiſhed a work on this ſubject, in which he has delineated the eggs of one hundred and forty different ſpecies, coloured ſo exactly from nature, that they can hardly be diſtinguiſhed. Sir *Aſhton Lever* has made the greateſt collection of the eggs of birds that has been hitherto known.

The habit of incubation is common to all birds, except two ſpecies, the oſtrich and caſſowary, who depoſite their eggs in the ſand, where they are hatched by the heat of the ſun. Before laying or incubation, all other birds

birds are uniformly directed by inſtinct to the operation of neſtling. Among the monogamous birds who build upon trees, this proves a laborious undertaking, and is accompliſhed generally by the united endeavours of both ſexes. The nidification of birds has been deſervedly the ſubject of much admiration; among the different orders there is to be found almoſt every imaginable variety in the ſituation, ſtructure, and materials of which they are compoſed. Such, however, is the uniformity with which inſtinct proceeds, that the ſame ſpecies, in all countries, build their neſts not only of the ſame ſhape, but as far as poſſible with the ſame materials. In the red-breaſt, and ſome other birds where a ſmall variation in their mode of architecture has been perceived, it has always been found to be the reſult of neceſſity. Where oak leaves are found in plenty, the former prefers them; if not, he ſupplies the want by moſs and hair. In general, the ſtructure of the neſt is adapted to the number of eggs, the temperature of the climate, and the heat of the animal's body which is to occupy it.

When the bird is of ſmall ſize, and its eggs are numerous, the neſt muſt be proportionably warm, that they may all equally partake of the vivifying heat. Hence the wren, and many of the ſmaller birds, conſtruct their little edifices with great care, and with very warm materials; whereas the plover and the eagle, whoſe eggs are ſo few, that the body may eaſily be applied to them, build with no ſolicitude; ſome, in theſe circumſtances, leave them upon the naked rocks. The climate has alſo its influence on the neſtling of birds: Many of thoſe water-fowl, who, with us, conſtruct their neſts in ſo careleſs a manner, diſcover greater ſolicitude in the colder climes of the north, where they ſtrip the down off their breaſts, to line their neſts, and protect their progeny.

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The ſituation of the neſts of birds ſeems to depend greatly upon their habits of life, the vicinity of food, and their ſecurity from the invaſion of their enemies. Some build upon the ground, as the gallinaceous tribes and water-fowl: others build under the ground, as the ſwallow and puffin; which laſt becomes the tenant of a rabbit's hole. By far the greater number build in buſhes, or on rocks: one ſpecies only, that of the water-hen, performs incubation on the ſurface of the waves, her neſt being attached to a few reeds. The larger rapacious birds, who live in perpetual hoſtility with all nature around them, repair, at the breeding ſeaſon, to the inacceſſible rocks and precipices, where they have leaſt to fear from man, and thoſe numerous tribes of animals with whom they conſtantly live in hoſtility. In the thick and luxurious woods of the warmer climates, where birds have little to fear, but from the ſerpent or the monkey tribes, ſome build their neſts pendulous from the extremity of the branch of a tree. There, where man is ſeldom their aggreſſor, they take no pains to conceal them from the eye; their conſtruction is beautiful, and their entrance curiouſly contrived below, to ſecure them againſt the more dangerous invaſion of the ſerpent or monkey tribes. But all thoſe birds who live upon fruits and corn, and are too often unwelcome intruders upon the fruits of human induſtry, are chiefly ſolicitous in conſtructing their neſts, to conceal them from the eye of man. Informed by experience, with how much ſeverity he checks their encroachments, they ſeem, by their extreme precaution, to elude his obſervation, and to regard him as their moſt formidable enemy.

The neſtling and ovation of the feathered race are no ſooner completed, than they enter upon another proceſs equally

equally neceſſary to perpetuate their kind, but ſtill more tedious and painful. Neither the nature nor extent of the inſtinct of brutes is fully underſtood; this principle, however, during the incubation of birds, ſeems in ſome reſpects to approach, if not to ſurpaſs the powers of reaſon. Nothing can exceed the patience of birds when hatching: during a period which continues from three to eight weeks, neither the approach of danger, nor the calls of hunger, can drive them from the neſt. Before incubation is completed, the female, however plump at the beginning, is generally emaciated to a ſkeleton. Among ſome tribes, the male and female ſit alternately, the more equally to divide the tedious labour: Among others, the male provides food for his mate, while hatching, or alleviates her toils by his melody from a neighbouring buſh; ſome join together in the arduous operation, and by increaſing the heat, endeavour to accelerate its progreſs. At times, however, the eggs acquire an heat that ſeems hurtful to infant life: on theſe occaſions they are left to cool; and the hen, after a longer or ſhorter ſpace, according to the weather, again reſumes her occupation, with her former perſeverance and pleaſure.

Mr. *Addiſon*, when ſpeaking of the inſtinct of birds, terms it an immediate direction of providence, ſuch an operation of the Supreme Being, as that which determines all portions of matter to their proper centre of attraction. It is certain that they ſeem almoſt entirely paſſive under its influence. In obedience to its call, they fly from one appetite to another; and whatever ingenuity they may ſeem to poſſeſs while acting under it, in every thing beyond its reach, they diſplay the utmoſt dullneſs, or the greateſt ſtupidity. "With how much

"ſeeming

" ſeeming caution does an hen provide herſelf a neſt in " places unfrequented, and free from diſturbance! When " ſhe has laid her eggs, ſo that ſhe can cover them, what " care does ſhe take in turning them regularly, that eve- " ry part may partake of the vital heat! When ſhe " leaves them to provide neceſſary ſuſtenance, how punc- " tually does ſhe return before they have time to cool, " and become incapable of producing an animal! When " the birth approaches, with how much nicety and at- " tention does ſhe help the chick to break the priſon: " ſhe covers it from the injuries of the weather; pro- " vides it with proper nouriſhment, and teaches it to help " itſelf!" In all theſe particulars, her inſtinct guides her with the caution and exactneſs of human reaſon in its niceſt and moſt delicate operations. Yet with all theſe appearances of ſagacity, the hen, in other reſpects, diſcovers no glimmerings of thought, nor any ſhadow of ingenuity. She will pleaſe herſelf with a ſtone, or a piece of chalk, inſtead of an egg, and will hatch it in the ſame manner: She knows not the number ſhe has laid; and allows them to be increaſed or diminiſhed at pleaſure: She cannot diſtinguiſh her own eggs from thoſe of another; and ſhe will rear a brood of ducks as carefully as chickens: When ſhe beholds this ſuppoſitious offspring launch into the pool, ſhe ſtands at the edge of the water, trembling between two contrary impulſes of inſtinct, but obeys the more powerful call of nature, that of ſelf-preſervation.

When the young are produced, the next object of parental care is their protection and ſupport; and the ſpirit and induſtry they diſplay at this period, demonſtrate how amply nature has qualified them for both. The moſt timid and inactive become ſpirited and courageous in

in defence of their progeny: The rapacious kinds acquire more than uſual ferocity. "They carry their "prey, yet throbbing with life, to the neſt, and early "accuſtom their young to habits of cruelty and ſlaugh-"ter." Thoſe of milder natures, equally occupied by the neceſſary concern of ſupporting their families, diſcontinue their ſinging at this ſeaſon; every inferior amuſement, on the commencement of this great æra of their happineſs, is laid aſide, when, proud of becoming parents, and rearing a progeny of their own, they ſeem tranſported with pleaſure.

Of thoſe birds who build on the ground, the greater part of the young are able to run as ſoon as they are excluded from the ſhell; all that is neceſſary for them, is ſhewing their food, and teaching the manner of collecting it. Thoſe, however, who are hatched upon trees, remain in the neſt ſo long as they continue in an unfledged ſtate. During this period, both parents are commonly employed in providing them a regular ſupply; with which they are all fed in their turns, one after another, that none may take away the nouriſhment from the reſt. It is not till after their plumage is fully grown, and they are capable of avoiding danger by flight, that the young are led from the neſt, and taught to provide for themſelves. At firſt they make only ſhort excurſions, while the weather is fine, around the neſt, or to thoſe places in its vicinity where food abounds. After they have been for ſome days taught to diſcover their food, and carry it away, and have become at length completely qualified to provide for themſelves, the old ones lead them no longer back to the neſt; but, conducting them to ſome field where their food is plenty, they forſake them for the laſt time; and their former intimate connection being no longer neceſſary, is for ever broken off.

From the longevity of birds, and their fertility in production, we might imagine that they would ſoon overſpread the face of the earth, and overpower the feebler tribes in the great commonwealth of nature. Their numbers, however, are abridged by a thouſand accidents; and it is probable that a family ſeldom adds its whole increaſe to the general ſtock of inhabitants. Such only as are hatched early in the ſpring, are ſtrong and vigorous; while ſuch as have been delayed till after the middle of ſummer, are feeble and tender. Many of the latter are incapable to ſuſtain the rigours of winter, and fall a ſacrifice to cold and want, againſt which they are unable to provide. Birds, as if warned of this danger, endeavour to produce their young early in the ſpring; if, however, their labours have been obſtructed by any accident, if their neſts have been diſcovered and plundered, they ſtill perſevere in their endeavours to fulfil the purpoſe of nature, and they uſher into life a feeble offſpring, at a period too late to acquire that vigour neceſſary to overcome the ſeverity of winter.

After the young of birds have come to that degree of maturity which renders them independent of parental aſſiſtance, the different tribes differ remarkably in their appetite for ſociety; ſome kinds are ſolitary, and others gregarious. Many birds who live in pairs only during the breeding ſeaſon, aſſemble together in large flocks as ſoon as that period is paſt. This is remarkably the caſe with ſwans, geeſe, and ducks; the whole order of *paſſeres* alſo commonly collect into flocks during winter; and in theſe flocks, birds of different ſpecies are often united: They all, however, regularly diſperſe on the approach of ſpring, the pairing ſeaſon. On the other hand, the herons, gannets, and ſome other tribes, live in a gregarious

gregarious ſtate during the breeding months, and afterwards ſpread over the country in a ſtate of ſolitude and diſperſion. Some are obſerved to breed and live the whole year in ſociety, ſuch as the pigeons, rooks, and ſtarlings; while the rapacious live in continual ſolitude: The eagle, jealous of the rivalſhip of his own offspring, unmercifully expels them from that diſtrict which he has choſen for his reſidence, and ſeems equally deaf to the calls of pity or affection.

SECTION VI.—*The general Uſes to which Birds are ſubſervient in the Economy of Nature.*

IN the general hiſtory of birds, we muſt not overlook thoſe important uſes to which they are ſubſervient in the economy of nature. The rapacious kinds evidently ſerve the important purpoſe of preſerving the ſalubrity of the air, by devouring all ſorts of carrion, every where ſcattered over the ſurface of the globe. The earth every where teems with living creatures, whoſe natural death, or accidental deſtruction, would communicate to the atmoſphere a putrid and noxious influence, were their careaſes allowed to diſſolve and mingle with the ſoil, by the ſlow proceſs of corruption. The order of *grallæ*, or waders, are evidently deſtined by nature to co-operate in the ſame neceſſary employment. They deſtroy toads, frogs, lizards and ſerpents, animals noxious while alive, and whoſe bodies, when dead, muſt more or leſs infect the air with putrid vapours. On this account, the inhabitants of *Holland* and of *Egypt* are greatly indebted to the labours of the ſtork: In the

latter country, which abounds with every hideous reptile which a humid ſoil or ſultry ſun can quicken into life, this favourite bird lives, even in its wild ſtate, protected by the laws of that ancient kingdom.

The granivorous birds are alſo deemed of great utility in the ſyſtem of nature; becauſe they abridge the fertility of thoſe plants which emit ſuch immenſe quantities of ſeed as would ſoon overſpread the earth; and which, if left unreſtrained, would infallibly overpower the more uſeful vegetables. Many ſpecies are farther uſeful in tranſporting ſeeds from one country to another, and thus diſſeminating plants more univerſally over the ſurface of the globe. Some of the water-fowl perform a ſimilar ſervice, by tranſporting the ſpawn of different kinds of fiſhes, and repleniſhing the waters where their inhabitants have been extirpated or diminiſhed. The ſeeds of plants, and the ſpawn of fiſhes, are in many inſtances known to reſiſt the digeſtion of animals, and to paſs through their bodies unaſſimulated, and ſtill in poſſeſſion of their prolific qualities: Water-fowl alſo perform the ſame office in their element which the rapacious birds do in the air; they prevent the putrifactions of ſtagnated waters, and preſerve their purity, by deſtroying vaſt numbers of aquatic animals with which they teem, whoſe bodies, by corruption, would render it pernicious. Thus, throughout the whole empire of nature, every province is ſubſervient to the general welfare: Vegetables, inſects, and fiſhes ſupply many animals, while the former are more univerſally diſſeminated by the latter; every order contributes to aſſiſt and nouriſh the adjoining one, or to check its exuberance. Thus a due balance and proportion is maintained throughout the whole; and no nation in the univerſal republic is allowed to ſurpaſs its boundaries, or overpower its neighbours.

Beſides

Beſides the uſes to which the feathered tribes are ſubſervient in the general plan of nature, we may contemplate their connection with man, and obſerve how far they contribute to his pleaſure or advantage. With regard to his ſupport, their utility is momentuous; for it is remarkable, that of the vaſt number of birds who inhabit the globe, it has never yet been diſcovered that a ſingle one is of a poiſonous nature. They differ, indeed, in being more or leſs ſalutory and palatable, as an article of diet; but none of them are pernicious: none of their eggs, in like manner, have been found of a noxious quality; a circumſtance well known to ſeafaring people, who eat freely every ſpecies of egg, without finding any bad conſequence enſue. Their eggs, however, as well as their fleſh, vary conſiderably in taſte; ſome are greatly preferable to others. The eggs of thoſe termed game, and of the different ſpecies of gallinaceous birds, are generally reckoned agreeable: of the caper-caillie, it is ſaid, that its eggs are the moſt delicate hitherto known; thoſe of the ptarmigan, lapwing, and buſtard, are alſo coveted by many, who prefer them to the eggs of the domeſtic poultry.

As an article of diet, all the carnivorous birds are avoided; though by no means poiſonous, their fleſh is hard, tough, and often of a fetid ſmell. The piſcivorous too, and eſpecially thoſe with ſharp bills, are generally diſliked; ſome of the young, indeed, are eaten with avidity, ſuch as the marrot, puffin, and gannet. All the water-fowl, even thoſe with flat bills, are generally reckoned a heavy and rancid food: The gooſe and duck are probably the beſt, and theſe are much improved by being kept at a diſtance from water, and reſtricted from fiſh.

The

The inſectivorous birds, though not noxious, are likewiſe generally avoided as an article of food, from their impure manner of feeding: On the contrary, all the tribes of finches, and other ſmall birds who feed upon grain or ſeeds, are much eſteemed. The woodcock, ſnipe, and bittern, the whole tribe called mud-ſuckers, are accounted a great delicacy among the connoiſſeurs; by theſe, too, are approved the muir-cock, partridge and capercaillie: it remains doubtful, however, whether the food of any bird can juſtly be prefered to the common poultry.

The next article relating to the general hiſtory of birds, is their domeſtication. Although the fleſh, eggs, and feathers of birds are valuable articles in the commerce of life, yet very few of this numerous claſs of animals has been made ſubſervient to economical uſes by domeſtication. Shy, timid, or fierce in their nature, they appear but little ſuſceptible of attachment or obedience. Jealous as they are of liberty, and furniſhed with effectual means of eſcape, they fly the haunts of men, and by far the greater part continues in the primitive wildneſs of nature. Few even of thoſe whom we term domeſtic, diſcover that familiarity or affection that obtains among thoſe quadrupeds who have given up independence for protection, and to whoſe conſtant miniſtry we are ſo much indebted.

Of the firſt order of birds, the rapacious, not one ſpecies has ever been domeſticated by man, except a few, for the purpoſes of falconry; and theſe are always taken when young, from the neſts of the wild ones; a proof that they do not thrive and propagate in their captivity. As their acquired habits are conferred upon them with great difficulty, ſo they are ſlight, and eaſily effaced: An

hawk

hawk, when he gets at a certain diſtance from his keepers, ſeldom wiſhes to return. The numerous tribe of pies contains not one ſpecies that hath ever been reduced to a domeſtic ſtate. Their food could not eaſily be procured in captivity; their manner of life is unfavourable to it, and their fleſh is deemed impure as an article of food. The gallinaceous order contains ſeveral ſpecies which have with great advantage been made ſubſervient to the purpoſes of domeſtic economy, viz. the peacock, the turkey, the barn-door fowl, and guinea hen: The laſt of theſe, however, has but lately been imported into *Britain*; the common poultry are originally from *Aſia*, but were early introduced into *Europe*.

Of the columbine tribe, one ſpecies only has been tamed, that of the common pigeon, which is well known, and in ſome places a very lucrative object of commerce. None of the paſſarine or ſtruthious orders have yet been domeſticated, though many of the former are reckoned delicate food. Four ſpecies of the duck kind have been brought from their wild ſtate to the ſervice of man; the ſwan, the gooſe, the Guinea duck, and the wild duck. The grallæ, or waders, are deemed ſuch excellent food, as to provoke the appetite of the pampered epicure, ſuch as the woodcock, ſnipe, curliew, ſtork, crane, and ſome others; yet not one of all this numerous claſs has ever been brought into a domeſtic ſituation. This enumeration ſuggeſts a remarkable fact, that of fifteen hundred different ſpecies of birds, which are already known and deſcribed, only nine have been rendered ſerviceable to the human race by domeſtication.

It is to be regretted, that the acquaintance of man with the feathered race is ſo limited, as many ſpecies may no doubt be found, which, by domeſtication, might add to his

his ſtock of ſubſiſtence, increaſe his induſtry, and multiply his amuſements. We have reaſon to believe, that even the birds of the warmer climates might, if otherwiſe proper for the purpoſe, be ſucceſsfully domeſticated, even in theſe northerly countries. Many of thoſe which we already have, are natives of the intratropical parts of the earth. The common turkey and guinea-hen were originally inhabitants of *Africa*, and probably of the burning regions under the line. The ſkeldrake, a bird rather larger in ſize than our common, is one of thoſe which, it is preſumed, might be rendered uſeful by domeſtication. It is tamed with facility; and though it lives on the ſhore, it has been found by experience, that it will thrive and breed in ponds. It is more beautiful in plumage than the common duck, and is equally proper for the uſes of the table. The domeſtication of the *Canadian* gooſe has alſo been attempted with ſucceſs, at the ſeat of a nobleman in *Scotland*. The eider duck, a bird rather ſmaller than the gooſe, might alſo be tamed, eſpecially as its down is conſidered as an article of value.

From the weight and ſize of the buſtard, in which it is ſuperior to the turkey, that bird ſeems highly uſeful for the table; and from the nature of its food, which is grain, it ſeems perfectly fitted for domeſtication. Its eggs are ſaid to be preferable to thoſe of all other birds, and its fleſh is nutritive: from its weight, it is ſcarcely capable of raiſing itſelf from the ground; a circumſtance which renders it perhaps too eaſy a prey to the ſportſman, but which ſeems favourable to its domeſtication. Similar to the buſtard in its manner of life, is the field-duck, a native of *France*, a bird which might be brought into this country, and tamed with great facility. The

American

American pigeon, might with propriety be introduced into this country, from *Canada* where it abounds, and conſtitutes a great part of the food of the inhabitants.

Beſides the birds fitted for domeſtication, there are others which might be imported to this iſland from abroad, and might proſper in a wild ſtate. The hazel hen, ſo much eſteemed in *Germany* both for ſport and the table, the Francolin of *Italy*, and the red-legged partridge of *Spain*, might all be eaſily introduced into *Britain*, to the great increaſe of our game. The laſt of theſe is domeſticated at *Cadiz*, and is found in its wild ſtate in plenty throughout *Spain* and *France*. It might be tranſported to *Britain* in either ſtate, perhaps with equal or greater ſucceſs than the golden and *China* pheaſants, which ſome gentlemen have ſo earneſtly endeavoured to propagate upon their eſtates. The creſted turkey abounds in its wild ſtate in the inland parts of *New-England*. The great quantities of food which the inhabitants obtain by killing this bird, clearly point out the advantages to be derived from its domeſtication, and the propriety of tranſporting it into this country. The ſame reaſon exiſts for introducing the *American* pigeon, which conſtitutes ſo conſiderable a part of the ſubſiſtence of the inhabitants of *Canada*.

But the greateſt *deſideratum* in the tranſportation of birds, ſeems to be that of the Capercaillie. This bird is indegenous in *Scotland*, and was formerly ſpread over the whole country; but from the facility with which it is killed, it became an eaſy prey to the ſportſman, and is now ſo nearly extirpated from the iſland, that except in ſome remote diſtricts of the Highlands, it is no where to be found. The black-cock or heath-fowl, too, is faſt diminiſhing in number; its extermination appears to be at no very remote period, unleſs it is tranſported, and preſerved on thoſe eſtates, where it formerly abounded.

CHAPTER II.

SECTION I.—*The General Characters of Rapacious Birds.*

THROUGH each claſs of animated beings, nature obſerves a remarkable uniformity in her productions: A great proportion of quadrupeds lives on the vegetable productions of the earth, while others are ſupported by devouring the fleſh of each other. The ſame general features are found to characterize the birds; ſome of them live upon grain, ſeeds, or graſs; and others upon fleſh, deſtroying every inferior animal, even of their own claſs, that is not endowed with force or ſwiftneſs to elude their rapacity. Were all animals ſo conſtituted that they could only ſubſiſt on one kind of food, the ſtock, however plentiful, could not maintain the ſame number as are ſupported by the preſent economy of nature, in which the rapacious are ſupplied by the fleſh of ſuch of the granivorous as fall by accident, or by the courſe of nature. By thus varying the appetites of animals, their numbers are multiplied, and the general ſtock of inhabitants is increaſed, whether of the air, the earth, or the ſea *.

The number of birds, however, who live by making depredations upon their own kind, is proportionably much ſmaller, than that of the carnivorous quadrupeds. In the former claſs, the rapacious conſtitute hardly a fifteenth part of the whole; whereas, in the latter, they amount to more than a third. As the number and ſtrength of the predatory birds are ſmaller than thoſe of the carnivorous quadrupeds, ſo the devaſtations committed

* Goldſmith's nat. hiſt. vol. V. p. 70.

ted by them on land are far leſs conſiderable. On the other hand, the tyranny of birds upon the water, ſeems more extenſive and inveterate: While the otter and beaver, with a few others, are the only quadrupeds that live upon fiſh †, there are vaſt tribes of birds who have no other ſubſiſtence. Thus the general plan of nature is followed out; life is multiplied, and the ſurplus of one order of animals is deſtined to increaſe and ſupport another.

The rapacious birds are eaſily diſtinguiſhed from the other orders, by their external form, as well as their habits of life. Their inſtinctive paſſion for animal food could not have been gratified, had not nature endowed them with powers fitted to obtain it. As their ſubſiſtence cannot be obtained without ſwiftneſs, courage, and ſtrength, they are, in general, remarkably ſuperior in theſe qualities, to all other animals of the feathered tribe. The head is large, the ſight aſtoniſhingly quick in thoſe that ravage by day; and ſuch as plunder in the night, from the extreme ſenſibility of their organs of viſion, ſee their prey in darkneſs with much preciſion. From the ſtrength of their muſcles, their wings, though large, are moved with a rapidity and force that enables them to ſurpaſs in velocity almoſt every bird of their own ſize. They are principally diſtinguiſhed by their beak, which is ſtrong and crooked, with a notch at the point, for the purpoſe of tearing their prey; by their legs, which are ſhort, ſtrong and muſcular; by four toes on each foot, all armed with ſharp hooked talons, which render it impoſſible for their booty to eſcape, when once it is ſeized.

† Buffon, tome 16.

Their internal conformation is no leſs adapted to the warlike and predatory life which they lead: Their inteſtines are ſmall in proportion to the ſize of their body, and they are capable of enduring want for ſeveral days together. Their ſtomach is leſs complicated than that of the granivorous tribes: Their food being ſucculent and nouriſhing, a ſhorter proceſs is, it ſeems, ſufficient for aſſimilating it: hence the ſimplicity of ſtructure in their organs of digeſtion, and the ſmallneſs of their ſize.

Thus armed by nature, they iſſue forth from the foreſts, the rocky mountains, and other ſolitary places, where they commonly reſide, and ſpread terror and devaſtation wherever they appear. They generally build their neſts upon the cliſt of ſome inacceſſible rock, or upon the talleſt trees of the foreſt. When impelled by hunger, or their native ferocity, they appear in the plain, it is only for the purpoſes of depredation: All the ſmaller birds fly at their approach, or endeavour, by concealing themſelves, to elude their ſearch: Some of them, when cloſely purſued, are forced to ſeek protection with man, and to ſurrender themſelves to him as the more merciful enemy; a mark of confidence, which might entitle them to his compaſſion and aſſiſtance, even in a leſs perilous ſituation.

The ferocity of the rapacious birds not only renders them deſtructive to their own ſpecies, and almoſt untameable by man, but even extends to their young, and deprives them, in a great meaſure, of parental affection. Many of them unnaturally expel their offſpring from the neſt, at a time when they are ſtill dependent on their aſſiſtance, and incapable of procuring their own food. This cruelty to their young ariſes from the neceſſity of providing for their own ſubſiſtence. All birds that are obliged

obliged by the conformation of their ſtomach and inteſtines, to feed upon fleſh, and ſupport themſelves by prey, muſt neceſſarily acquire habits of cruelty, from the conſtant uſe of thoſe arms which nature has conferred upon them, even although they had been originally mild. As it is only by deſtroying others that they can ſupply themſelves, their continual combats muſt enure them to that fierceneſs and iraſcibility which diſtinguiſh their manners, and overpower every milder inſtinct, and even their affection for their young. It is with little pity or attention, that the bird of prey liſtens to the cries of her brood, which are more famiſhed in proportion as they increaſe in ſize. Should ſhe fail of ſucceſs in the chace, or ſhould her prey become ſcarce, ſhe beats them, expels them from her neſt, and ſometimes deſtroys them in thoſe tranſports of fury, of which her own preſſing wants, and her miſery is the cauſe *.

The effects of ſo much fierceneſs natural and acquired, would prove fatal to all the ſmaller birds, had not nature provided, that the rapacious kinds ſhould generally purſue ſuch as approach neareſt to their own ſize. The eagle does not indulge in indiſcriminate rapine in the grove, but ſingles out the grous or pheaſants from the inferior birds, which he regards as unequal to his ſupport, or below the dignity of his reſentment. The ſmaller birds of this order direct their attacks againſt the linnet, the thruſh, or the ſparrow, who, by the ſuddenneſs of their evolutions, and agility of flight, ſeem poſſeſſed of adequate means of eſcape. Did the eagle, to its own ſwiftneſs, add the verſatility of the ſparrow, all the inferior tribes muſt unavoidably have been deſtroyed †, and diſappear from the face of the earth.

The

* Buffon, tome 16. p. 67.

† Goldſmith's Nat. Hiſt.

The tyranny of the rapacious birds is ſtill farther reſtrained by their infecundity; the greater part of them laying from four to five eggs, and ſome only two. The ſmalleſt of them are generally the moſt productive; but the fertility even of theſe is far inferior to that of the numerous tribes of which they are the deſtroyers. The pigeon, which lays the feweſt eggs of all the granivorous birds, by the frequency of its breeding, far exceeds the fertility of any of the rapacious kinds. Wherever courage or ſtrength is wanting in any animal, and life on that account is eaſily deſtroyed, nature kindly compenſates for theſe defects, and provides for the preſervation of the ſpecies, by increaſing its power of reproduction.

The fierceneſs of this order of birds, and their difficulty of procuring food, render them unſociable *. The rapacious birds, like the carnivorous quadrupeds, never aſſemble in flocks; at the breeding ſeaſon, the male and female are found together, in obedience to the call of that appetite, which controuls their ferocity, and which in force appears inferior only to the neceſſity of ſelf-preſervation. Although one pair of eagles may ſubſiſt together, and two individuals aſſiſt each other in the hoſtilities which they commit, a larger number in ſociety could not find a ſufficiency of food: Hence the young, as ſoon as they are capable of flight, are driven from the tracks occupied by their parents, and are forced by the ſame neceſſity which urged their progenitors, to lead a wandering life, and devour in ſolitude the fruits of their plunder. The vultures alone form an exception to this remark; as they feed upon large carcaſes which are found in plenty in the countries which they inhabit, they

* Buffon, tome 16, p. 68.

they ſometimes crowd in vaſt numbers to glut themſelves with the ſame carrion.

In all birds, except the rapacious, the males are ſuperior in ſtrength and ſize to the females: Among them, however, the male is generally one third leſs in bulk; a circumſtance from which falconers have termed him the *Tiercel**. The female no leſs excels her mate in beauty of plumage, courage, and generoſity, than in point of ſize. Naturaliſts have in vain attempted to account for this diſparity. The ſame appearance among the inſects and fiſhes, they have imputed to the immenſe quantities of larvæ and ſpawn which the females in theſe claſſes produce, and which muſt require a proportionably larger bulk to contain them. No ſuch reaſoning will apply to the rapacious birds, who, as we have already obſerved, are the leaſt fruitful of all feathered tribes. Some have ſuppoſed, that as the female has chiefly the charge of maintaining the young, her ſuperior ſize and courage were the endowments by which nature had enabled her to diſcharge that laborious and difficult office.

The fleſh of all birds of the rapacious nature, is reckoned impure; it is lean, tough, and ill-taſted; its flavour commonly reſembles that of the animals which they devour. That of the vultures has a fœtid and abominable ſmell, which all the endeavours of the wretched ſavages, who ſometimes are forced to eat them, is unable to remove. The ſtench is unconquerable, and ſeems to defy all the efforts of their invention: In vain the intrails are taken away, waſhing is attempted, or ſpices applied; the nauſeous effluvia ſtill continue to repel their avidity.

In the order of rapacious birds, *Linnæus* enumerates four *genera*; that of the vulture, the falcon, the owl, and the ſhrike. The circumſtances of age, ſize, colour, and climate,

* In France *Tiercelet*.

climate, prove abundant ſources of miſtakes in arranging all birds: with regard to the rapacious kinds, naturaliſts are not agreed in the number of genera, much leſs of the various ſpecies and varieties, which this order contains. The genus of vultures may eaſily be diſtinguiſhed, from their head and neck, which are covered with ſhort down; their legs and feet are covered with ſcales; their claws are large, broad, and hooked; and the inſide of their wings is covered with down.

Plate I.

KING OF THE VULTURES.

BEARDED VULTURE.

SECTION II.

GENUS I.—*The Vultures.*

THE vulture is placed in the firſt rank among the rapacious kinds, on account of his ſuperior ſtrength and ſize; for in courage and generoſity he is far inferior to the eagle. Though he ſeems moſt nearly allied to the latter, he may be diſtinguiſhed from him at a conſiderable diſtance, either on the ground or on the wing. His poſture, while ſtanding, is not ſo ſtately and erect as that of the eagle, but inclines ſtrongly forward, and ſeems to indicate the baſeneſs of his diſpoſition. His flight, too, is ſingularly dull and heavy; it is with great difficulty, and not till after repeated efforts, that he can raiſe himſelf from the earth. The vulture is as deſtitute of courage as activity: While the eagle oppoſes himſelf ſingly to his foe, and ſeems as eager for victory as for ſpoil; this ſluggiſh and cowardly creature almoſt never attacks a living animal, if his gluttony can be ſatiated with the carcaſes of the dead. The vultures alone, of all the predatory birds, like cowardly aſſaſſins, when afraid of reſiſtance, form combinations againſt a ſingle enemy, and baſely overpower him by numbers. Their indelicate gluttony is as remarkable as their cowardice: rats, ſerpents, fiſh, and the fleſh of dead animals, though half rotten, are equally acceptable; putrifaction, inſtead of deterring, ſeems to allure them. They unite the ſtrength and cruelty of the tiger, with the cowardice and gluttony

of the jackal: like them, they aſſemble in flocks, devour carrion, and dig up the carcaſes of the dead: Of this genus, there are eight ſpecies.

The King of the Vultures *.

MR. *Edwards* and M. *Briſſon* have both ſeen ſeveral of theſe birds, which are the moſt beautiful of this genus: They have each given a minute deſcription, which *Goldſmith* has abridged as follows: "This bird is a native of "*America*, and not of the *Eaſt Indies*, as thoſe who make "a trade of ſhewing birds, would induce us to believe. "It is larger than a turkey cock, but is chiefly remarkable "for the odd formation of the ſkin of the head and neck, "which are bare. This ſkin ariſes from the baſe of the "bill, and is of an orange colour; from whence it ſtretch-"es on each ſide to the head; from thence it proceeds "like an indented comb, and falls on either ſide, accord-"ing to the motion of the head. The eyes are ſurround-"ed by a red ſkin; and the iris has the colour and luſtre "of pearl. The head and neck are without feathers, co-"vered with a fleſh-coloured ſkin on the upper part, a fine "ſcarlet behind the head, and a duſkier coloured ſkin be-"fore: farther down, behind the head, ariſes a little tuft "of black down, from whence iſſues and extends beneath "the throat, on each ſide, a wrinkled ſkin of a browniſh "colour, mixed with blue, and reddiſh behind: Below, on "the naked part of the neck, is a collar, formed by ſoft "longiſh feathers, of a deep aſh colour, which ſurround "the neck, and cover the breaſt before. Into this collar "the bird ſometimes withdraws its whole neck, and ſome-"times

* Roi de Vautures of *Briſſon*. Monachus of *Linnæus*

" times a part of its head; ſo that it looks as if it had with-
" drawn its neck into its body."

This bird, which we have placed at the head of the vulture tribe, on account of the ſuperior beauty of his external appearance, is no way diſtinguiſhed from the reſt by the generoſity of his manners, or the delicacy of his appetite. He attacks only the weaker animals, devouring rats, lizards, ſerpents, and every kind of excrement or filth.

The Vulture of Braſil.

This bird has been claſſed, by moſt naturaliſts, among the vultures, becauſe it is not only poſſeſſed of the ſame habits, but, like the reſt of this genus, has the head and neck naked of feathers: The wrinkled ſkin with which theſe parts are covered, is variegated with blue, white and red colours, ſomewhat reſembling that of a turkey-cock: a circumſtance from which theſe birds have been called *gallinaſſos* by the *Portugueſe* and *Spaniards*. It is about the ſize of a wild gooſe; its wings, when folded, extend beyond the extremity of the tail: The feathers of the whole body are blackiſh, with a ſhade of dark green and purple. The beak is white, the legs and feet of a fleſhy colour.

This bird is an inhabitant of *Braſil*, *Guiana*, *Peru*, and ſome of the *Weſt India* iſlands. In its manners, it is more cowardly, naſty, and voracious than perhaps any of the vultures. If its high and rapid flight were attended with a proportionable degree of courage, it might live by the chace; incapable, however, of facing danger, it contents itſelf with carrion, and every kind of filth, and

will not attack an animal even when wounded or aſleep, unleſs able to overpower it, by aſſembling a great flock of thoſe of its kind.

The *Brazilian* vultures are generally ſeen in large flocks, fly very high in the air, and paſs the night upon the talleſt trees, or on the moſt inacceſſible rocks, from which they repair by day to the neighbourhood of towns, where they alight on ſome eminence to watch their prey. Their ſight and ſmell are remarkably penetrating; they diſcern their food at a great diſtance; which, as ſoon as diſcovered, they all fall upon it at once, and devour it in ſilence, till they are frequently ſo glutted, that they are unable to riſe from the ground. As often as this is the caſe, they are ſaid to have the power of vomiting their food, till their bodies are ſufficiently lightened, for the purpoſe of making their eſcape. In ſome parts of *South America*, where the hunters deſtroy beaſts merely for the ſkin, the vultures follow in their train in vaſt numbers. The numberleſs carcaſes which are flead, and expoſed to the air, would ſoon render theſe parts unhealthy by their putrefaction, were it not for the miniſtry of the vultures: No ſooner do they obſerve a carcaſe abandoned, than, by a general call, they all alight upon it, and inſtantly devour it to the bones, which they leave as bare as if they had been ſcraped with a knife. The *Spaniards* and *Portugueſe*, who carry on a trade in hides from theſe quarters, take the vultures under their protection, from the benefit they render them in preſerving the purity of the air, which the putrefaction of ſo many carcaſes could not fail to corrupt *.

From this circumſtance, in *Guiana*, *Braſil*, and *New Spain*, they are extremely numerous; but their fleſh is altogether

* Acoſta's hiſt. of the Indies, p. 196.

altogether uſeleſs for food. From the foul nature of their ſubſiſtence, it has contracted a putrid flavour which nothing can remove. In vain they try to conquer it, by taking away the entrails and the romp, or by waſhing and applying ſpices; their hard, ſkinny and fibrous fleſh has contracted a ſtench which nothing can render ſupportable.

It is pleaſing to be a ſpectator of the hoſtilities between the crocodile and the *Braſilian* vultures: Of all animals, they are perhaps moſt at enmity. The female crocodile, which in the rivers of *America* grows to the immenſe ſize of twenty-ſeven feet, lays her eggs, to the number of two or three hundred, in the ſands, by the ſide of the water, where they are hatched by the heat of the climate. This hideous animal takes every precaution, while depoſiting her burden, to conceal the place from every other creature; but is unable to elude the penetration of the vulture. A number of them ſit ſilent and unſeen among the branches of a neighbouring foreſt, while ſhe is employed in burying her eggs, and view her operations with the eager expectation of ſucceeding plunder. They wait patiently till the crocodile has laid the whole number of her eggs, till ſhe has covered them carefully under the ſand, and until ſhe is retired from them to a convenient diſtance: Then, as *Goldſmith* deſcribes, they attack, all together, encouraging each other with cries, pour down upon the neſt, hook up the ſand, in a moment, lay the eggs bare, and devour the whole brood without remorſe.

This bird is to be found alſo on the continent of *Africa*, from whence, probably, it has found its way into the *New World*. Their manners at the *Cape of Good Hope*, are deſcribed by *Kolben*, who had often been a ſpectator of their mode of anatomiſing the dead bodies of cows, oxen,

"oxen, and wild animals, which they devour. "Theſe "birds," ſays he, "ſeparate the fleſh from the ſkin and "the bones with ſuch art, that they leave only the bare "ſkeleton, covered, however, with the ſkin ſo entire and un-"broken, that it is impoſſible to perceive that the carcaſe "is empty, without a narrow examination. In perform-"ing this operation, they firſt make an aperture in the bel-"ly of the animal, from whence they tear out the entrails, "and devour them: They then enter the empty ſpace thus "formed, and ſeparate the fleſh from the ſkin and bones, "without diſcompoſing either. They attack their prey by "ſurpriſe; if an ox, who is left to return from the yoke to "his ſtall alone, ſhould chance to lie down and reſt by the "way, he is no ſooner perceived by the vultures, than they "inevitably fall upon him, and devour him. When they "attack an ox in the fields, they generally aſſemble to the "number of an hundred, and ſometimes more, and thus "overpower him by a general onſet."

There are two ſpecies of vultures peculiar to *Egypt*; the ſpotted vulture, and the black. In that country they are held in great veneration, becauſe they deſtroy the ſerpents, and other noxious animals with which it is infeſted. *Dr. Shaw* informs, that they are to be ſeen in great numbers in the neighbourhood of *Grand Cairo*; and that, from the harmleſsneſs of their nature, they are regarded as ſacred by the *Mahometans*. The *Pacha* orders two oxen every day for their mantainance; perhaps from ſuperſtitious motives, or probably in conſideration of their ſervices, in removing the carrion and filth from that great city *.

In *Europe* there are ſeveral of theſe birds; as, the aſh-coloured, the golden, the brown, and the creſted vulture: There,

* Shaw's Travels, Vol. II. p. 9.

There, however, they are far from being numerous; they produce young only once in a year, and, according to *Ariſtotle*, lay only one or two eggs. They build their neſts commonly in ſuch high and inacceſſible ſituations, that it is but rare to find them out. They inhabit, from choice, the moſt deſerted and mountainous countries during ſummer: it is not till the froſt and ſnow compel them, that they retire into lower and warmer ſituations. They ſeem more ſenſible of cold than the generality of eagles, few of them being found in the northern countries. *Linnæus*, who enumerates the birds of *Sweden*, takes no notice of the vulture. *M. Buffon*, however, mentions one he had ſent him from *Norway*. In *Great Britain*, there are, properly ſpeaking, no vultures; the faun-killer of this iſland ſeems improperly claſſed in this genus by the *Swediſh* naturaliſt; for it has all the characters of the eagle.

The Brown Vulture *.

This bird is eight feet in breadth, when its wings are extended: its neck is almoſt entirely diveſted of feathers; upon the top of the head, however, there is a tuft forming a kind of creſt, beneath which are ſeen the apertures of the ears. The crop or ſtomach of this ſpecies is remarkable for a large cavity, covered with hairs all pointing from the circumference to its centre. The largeſt feathers of the wing are two feet in length, the quill of each above an inch in circumference.

This

* Le Griffon, Buffon; Le Vauture fauve, Briſſon.

This bird is believed to be the great vulture mentioned by *Ariſtotle* *. So vague and looſe are the terms employed by that father of naturaliſts, that it is now no eaſy matter to determine with certainty the ſpecies to which his deſcriptions ought to be applied. His remarks were general and detached; he had probably no collection of animals; and it is certain he had no idea of compoſing a ſyſtem of natural hiſtory. From the obſervations made by the gentlemen of the Academy of Sciences at *Paris*, it appears that the internal ſtructure of this bird, as well as that of the reſt of the genus, differs conſiderably from the rapacious tribes of hawks and eagles. Their organs of digeſtion approximate to thoſe of the gallinaceous birds who feed upon grain. They have a ſort of gizzard of great muſcular force, which is no leſs calculated for the trituration of grain than the digeſtion of fleſh. This genus may be regarded not ſo much granivorous or carnivorous, but as endowed with a capacity of devouring every thing.

The Vulture of the Alps †.

Something in the air and figure of this bird reſembling the eagle, had determined the *Grecian* naturaliſt to rank it in that claſs: it forms in reality the laſt ſtep in that progreſſion of ſhades between theſe two tribes; but it is beyond all doubt more cloſely allied to the former than the latter. To the rapacious habits of the eagle, it joins the daſtardly manners of the vulture: Of the firſt it retains none of the generous qualities, while it ſeems to outdo the

* Hiſt. Anim. lib. viii. cap. 3.

† Le Percnoptere, Buffon. le Vauture des Alpes, Briſſon.

Plate II

VULTURE

TAWNY VULTURE

BLACK BACKED EAGLE

the laſt in every thing hideous and diſguſting. It allows itſelf to be chaced and beaten by the crows; and being an unactive hunter, and of ſluggiſh flight, it is continually uttering the doleful cries of hunger, as it trudges along in queſt of carrion. Its wings are ſhorter, and the tail longer than in the eagle tribes: the head is of a bright blue, and the neck covered with a thin down of white colour. At the lower part of the neck, the bird is provided with a collar of ſmall white feathers, reſembling a ruff. The bill, and the naked ſkin covering its baſe, are black, the legs and feet of a leaden colour; but what moſt remarkably diſtinguiſhes this bird, is a large brown ſpot upon its breaſt, immediately below the ruff, of the ſhape of a heart.

The vulture of the *Alps* is a bird of an ignoble and ill proportioned figure; and his unattractive form is rendered ſtill more diſguſting by a kind of humour that is continually iſſuing from his noſtrils, and from two other apertures in the beak, which ſeem provided for the eſcape of this matter conſtantly diſcharged by the animal. When upon the ground, the crop appears prominent, and the wings are ſpread: This ſpecies is more rare than the other *European* vultures, being only found upon the *Alps* and *Pyrenees*, and ſome mountains of *Greece*.

The great aſh-coloured Vulture *.

THE feathers of this ſpecies are rather black than aſh-coloured; it is of the ſize of the common eagle, and is diſtinguiſhed from the brown vulture, which it moſt

* Le vauture, Briſſon. Le grand vauture, Buffon.

nearly reſembles, by a much longer and cloſer covering of down, of the ſame colour with the feathers of the back, and by a ſort of white cravat which proceeds from each ſide of the head, and reaches down the neck. The legs and feet of this ſpecies are characteriſtic; the former being covered with brown feathers, and the latter being yellow.

The Creſted Vulture *.

THIS vulture is inferior in ſize to the three former; its magnitude, however, has been deemed ſufficient to entitle it to a place among the vultures Its bill is black, and hooked at the end; the feathers of a browniſh black, and the legs yellow †. When upon the ground, it raiſes two tufts of feathers on the ſides of its head, reſembling horns; which, while the bird is on wing, are not perceptible. The wings of this bird, when extended, are ſix feet; his flight is more rapid than the reſt of the vulture tribes, as his courage and activity are greater. He purſues and preys upon almoſt every ſpecies of bird; but is moſt ſucceſsful in chaſing hares, rabbits, young foxes, fawns, and even fiſhes. When purſuing his prey, his flight ſeems to be the effect of much effort; and it is attended with a great noiſe. His favourite food is the entrails of animals, whether dead or alive; and though remarkable for voracity, he can endure an abſtinence of fourteen days. *Geſner* relates, that two of this ſpecies were caught in the province of *Alſace*, in a neſt conſtructed

* Le vauture a aigrettes, Buffon. Le vauture hupé, Briſſon.

† Geſneravi. pag. 702.

ſtructed upon a very tall oak, not far from the town of *Miſen*.

The golden vulture is the moſt remarkable of the *European* birds of this tribe; and in many particulars it reſembles the golden eagle, only ſurpaſſing it in every proportion. From the top of the bill to that of the tail, it meaſures four feet eight inches. The bill is about ſeven inches long; the tail two feet three inches, and the largeſt feathers of the wing are about three feet *. The head, throat, and upper part of the neck, are covered with a pale red down; the back, rump, and coverts of the tail, are blackiſh: All the lower parts of the body, the breaſt, belly, and ſides, are brown,—deep towards the head of the bird, but yelloviſh as they approach nearer the tail. The other ſpecies of vultures differ in ſize and colour, but are all ſufficiently diſtinguiſhable by their naked heads and necks; their bills ſtraight from the baſe, but crooked towards the point.

Vultures, although rare in *Europe*, are extremely numerous in *Egypt*, *Arabia*, and the iſlands of the *Archipelago*. There their ſkins, which are as thick as that of a kid, conſtitute a valuable article of commerce. Thoſe who deal in them take off the large hard feathers, leaving a fine, thick, and warm down, which covers the ſkin, and renders it a comfortable wear, when made an article of clothing. After they have gorged themſelves with an exceſs of food, they cannot eaſily take their flight, and are in that condition readily caught by dogs, or killed by ſtones or cudgels thrown at them by the inhabitants †.

* Buffon, tom. 1. p. 459.

† Dappier's deſcription of the Archipelago

The eagle chaces by the eye; but the ſmell of the vulture being far more acute, it is probable he is moſt frequently directed to his prey by that ſenſe: no ſooner does an animal drop, than they are aſſembled around it from all quarters, though diſtant far beyond the reach of ſight. Their internal formation differs conſiderably from birds of the eagle or hawk kind: Like granivorous birds, they have both a crop and a ſtomach, which, from the ſtrength of the muſcles of which it is compoſed, may be conſidered as a gizzard. They ſeem adapted inwardly, not only for being carnivorous, but to devour grain, and almoſt every kind of food that can gratify their voracious habits.

Section II.

The Condor.

Before we leave the deformed and noxious tribe of vultures, we muſt give ſome account of the condor, a bird of ſuch enormous ſize and ſingular habits, that naturaliſts have not yet determined to what genus it ought to be referred. The caſſowary, the oſtrich, and dodo, may, from their incapacity of flight, be regarded as imperfect birds, when compared with the condor, which nature hath endowed with all the qualities that belong to this claſs of beings, even in a higher degree than the eagle. Its breadth, when flying, is from ſixteen to eighteen feet; its beak and talons are proportionably large and ſtrong, while it poſſeſſes a courage equal to its force. With ſuch formidable endowments, the condor claims a high rank among birds; and were its numbers proportioned to its powers, every tribe of animals muſt have in

vain

vain oppoſed its depredations. Happily, however, for the ſafety of the animal world, this bird is in every country extremely rare. P. *Feuillee* is the only naturaliſt who has given a minute deſcription of it.

" I diſcovered," ſays he *, " in the valley of *Ilo*, in " *Peru*, a condor perched on a high rock before me; I ap- " proached within muſket ſhot, and fired; but as my " picce was only loaded with ſwan-ſhot, the lead was " not able ſufficiently to pierce the bird's feathers. I " perceived, however, by its manner of flying, that it " was wounded; as it roſe heavily, and with a good deal " of difficulty reached another rock, about five hundred " yards diſtant, upon the ſhore; I therefore loaded " again, with a ball, and hit the bird under the throat, " which made it mine. I accordingly ran up to ſeize " it; but, even in death, it was terrible, and defended " itſelf on its back, with its claws extended againſt me; " ſo that I ſcarce knew how to lay hold of it. Had it " not been mortally wounded, I ſhould have found it no " eaſy matter to take it; but I at laſt dragged it down " from the rock, and, with the aſſiſtance of one of the " ſeamen, carried it to the tent, to make a coloured " drawing.

" The wings of this bird, which I meaſured exactly, " were eleven feet four inches, from one extremity to " the other: The great feathers, that were of a beautiful " ſhining black, were two feet two inches long †. The " thickneſs of the beak was proportionable to the reſt of " the body; the length about four inches; the point " hooked downwards, and white at its extremity, and " the other part was of a jet black. A ſhort down of a " brown

* Feuillée Journ. des Obſerv. Phyſ. p. 640.

† The French foot is thirteen inches.

" brown colour, covered the head; the eyes were black, " and ſurrounded with a circle of reddiſh brown: the " feathers, on the breaſt, neck, and wings were of a " light brown; thoſe on the back rather darker: its " thighs were covered with brown feathers down to the " knee: the thigh-bone was ten inches long; the leg " five inches: the toes were three before and one behind: " the latter was an inch and an half long, with a ſingle " joint; and the claw with which it was armed was " black, and three quarters of an inch: the other claws " were in the ſame proportion; and the leg and toes co- " vered with black ſcales.

" Theſe birds uſually frequent the mountains, where " they find their prey. They never deſcend to the ſea " ſhore, but in the rainy ſeaſon; ſenſible of cold, they " repair there for warmth. Though theſe mountains " are ſituated in the torrid zone, the cold is often very " ſevere; for almoſt the whole year, they are covered " with ſnow; but eſpecially during the winter, it is a " great depth upon them. The ſmall quantity of nou- " riſhment which theſe birds find on the ſea-coaſt, ex- " cept when the tempeſt drives in ſome great fiſh, " obliges the condor to remain there but a ſhort time. " He uſually comes to the coaſt at the approach of " evening, remains there all night, and returns again in " the morning."

The condor thus deſcribed by *Feuillee* ſeems to have been much inferior in ſize to thoſe deſcribed by *Acoſta*, *Garcilaſſo*, *Demarchais*, and ſome other travellers, who affirm they have ſeen them eighteen feet from tip to tip of the wing: that their beaks are ſo ſtrong and ſharp, that they can eaſily pierce the body of a cow; that two of them can attack, and devour one entirely; that they ſometimes ſingly oppoſe a man. Though ſurpriſe among

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the early writers, who firſt diſcovered this bird, might lead to exaggeration, yet the *Indians*, who are more accuſtomed to ſee them, declare, that they can carry off a deer or a calf as eaſily as an eagle does a rabbit; that their bodies are as large as a ſheep; that their fleſh is tough, and ſmells like carrion: their ſight is piercing, and their looks cruel. The Spaniards themſelves ſeem afraid of their depredations; there are inſtances of their carrying off children of ten or twelve years old. Their flight is terrible; and, when they alight, one is ſtunned with their noiſe *. *Condamine* aſſures us, that he has often ſeen them in the province of *Quito*, and on the borders of the *Maragnon*, ſwimming above a flock of ſheep, ſome of which they would have carried off, had they not been ſcarred by the ſhepherds. It is reported that the Indians of theſe countries catch them, by working a piece of viſcous clay into the form of a child, upon which they dart with ſuch rapidity, that their claws are entangled, ſo as to prevent their eſcape †. *De Solis*, alluding to this bird, ſays, that there were among the curioſities of the emperor of *Mexico*, birds of ſuch extraordinary fierceneſs and ſize, that they appeared monſters; that he had been informed each of them could devour a ſheep at a ſingle meal ‡.

After reading the hiſtory of theſe birds, the fiction of *Virgil's* harpies appears leſs extravagant, or rather ſeems to ſink into mere narrative. Later writers, however, have greatly ſoftened their accounts, and aſſure us, that the countenance of the condor is not ſo terrible as the

* Hiſtoire des Incas, tom II. p. 201.

† Voyage de la riviere des Amazons, p. 172.

‡ Hiſt. de la Conqueſte du Mexique.

the firſt travellers had painted it; that their natures appear equally mild with the eagle or the vulture.

Mr. *Ray*, and almoſt all the naturaliſts after him, have claſſed the condor in the genus of the vultures, on account of the nakedneſs of his head and neck. His diſpoſitions, however, and habits, ſeem as ſtrongly to plead his affinity to the eagles: he is rapid, fierce, and courageous, and, like them, lives by the chace. His preferring live-prey to carrion, his activity, and every habit, ſeem to bring him nearer to the eagle than to the vulture tribes *.

However this may be, it is probable, that this extraordinary bird is not confined ſolely to *South America*. Some are of opinion, that it is alſo to be found in *Africa*, *Aſia*, and even in ſome parts of *Europe*. *Garcilaſſo* imagines it to be the ſame bird with the *roc*, ſo famous in the fables of the *Arabian* writers †. Probably the great bird mentioned in the voyages to the *South Sea*, which is ſaid to be nearly as large as an oſtriche, is the ſame with the condor. The bird of prey, in the neighbourhood of *Tarnaſſar* in the *Eaſt Indies*, and the vulture of *Senegal*, which carries off children, are of the ſame ſpecies with that above deſcribed. Several authors mention a ſimilar bird, ſometimes ſeen in *Ruſſia*, *Lapland*, and *Germany*. *M. Buffon* mentions a large bird ſhot in *France*, eighteen feet in breadth, which he ſuppoſes to be the condor, not only on account of its ſize, but of its pie colour, reſembling thoſe birds in *Peru*. That naturaliſt deems it ſcarcely probable, that a bird which claims the firſt rank in this claſs of beings ſhould be confined to a ſingle diſtrict of the earth.

The

* Buffon, tom II. p. 191.

† Hiſtoire des Incas, tom I. p. 27.

The condor is happily a rare bird in every quarter of the globe. Fitted by nature to live on every kind of food, he flies the haunts of men, and dwells on the high mountains, or in remote deſerts, where he is ſeldom ſeen. The wild mountains of *Peru*, where he reſides, inſpire a ſecret horror in the mind. There the broken precipices ſeem to forbid the approach of man; and the ſtill and gloomy foreſts are never made vocal by the note of any bird. The condor, the ſerpent, and the panther, are the frightful inhabitants of theſe dreary abodes, and add terror and ſolemnity to the grand ſcenes which nature, in all her primeval wildneſs, there preſents to the eye of the traveller.

Section III.

Genus II.—*Falcons.*

This is by far the moſt numerous tribe of rapacious birds. *Linnæus* has, with propriety, claſſed the eagles and falcons both under one genus; as their generic character ſeems perfectly the ſame. He enumerates thirty-two ſpecies. Mr. *Ray* and *Briſſon* ſeparate the eagles from the falcons: the former has eight ſpecies of eagles, and twenty-five of falcons; the latter fifteen of eagles, and thirty-ſeven of hawks. Such is the uncertainty of claſſification, that one naturaliſt conſiders as a ſpecies, what another only marks as a variety.

The eagle is conſidered as by far the nobleſt, and moſt generous of the rapacious birds. The golden eagle was ſacred to *Jupiter*; the *Perſians*, and after them the *Romans* *, aſſumed this bird for their enſign in war; one was repreſented on the ſtandard before each legion. They in general inhabit the mountainous and rocky countries; ſome ſpecies of them are to be found almoſt in every quarter of the world; ſeveral different kinds inhabit *Britain*.

So great is the native fierceneſs of the eagle, that hardly any effort will render it ſo tame and familiar, as to qualify it for the chace. We are informed, that they were anciently employed for this purpoſe in the eaſt; but we have long ſince baniſhed them from our ſyſtem of falconry.

* Fulvam aquilam Jovis nuntiam; Cicero de legibus. Fulvuſque tonantis armiger; Claudian.

falconry. They are too heavy to be able, without great fatigue, to outſtrip the game, and never ſo tame and gentle, but their caprices or rage are at ſome moments formidable to their keepers. Their beaks and claws are hooked and frightful. Every part of their figure correſponds to their diſpoſition; for, independent of theſe arms, the whole body is compact and robuſt; their legs and wings are ſtrong, and their feathers hard; their movements quick, and flight rapid *.

The eagle, of all birds, flies higheſt in the air; for which he obtained from the *Ancients*, the name of the *bird* of *heaven*, and was regarded in their omens as the meſſenger of *Jove*. His ſenſe of ſight is alſo exquiſite; but in that of ſmelling, he is far inferior to the vulture; he only chaces by ſight, and as ſoon as he has ſeized his prey, drops from his height, as if to examine its weight, always laying it on the ground before he carries it off. Although his wings are ſtrong, yet as he has not much ſuppleneſs in his legs, he finds it difficult, eſpecially when laden with prey, to riſe from the ground. He eaſily carries off geeſe, cranes, lambs, and kids; and when he attacks fawns or calves, it is to glut himſelf with blood upon the ſpot, and to carry away pieces of their fleſh to his *airie*, which is the name given to his neſt.

It is aſſerted, that the ſame neſt ſerves the eagle the whole of its life; and it ſeems indeed to be of ſuch a bulk, and of ſuch durable materials, that a frequent repair is hardly neceſſary. It is commonly of a flat form, built of large ſticks, upon the dry and inacceſſible part of a rock, lined with ſeveral layers of reeds or brambles: it is ſeveral feet in breadth, and of ſuch ſtrength as may ſupport, not only the eagle and her young, but alſo a

* Buffon, tom. 16.

large quantity of food which ſhe lays up in ſtore for them. In the middle of this airie, does the female depoſite two or three eggs, which ſhe continues to hatch for thirty days. Rarely, however, are the whole even of that ſmall number productive; two, and ſometimes one eaglet, is the extent of her family; the ſmaller kinds indeed are more prolific, but the whole race is marked by its infecundity. It is reported, that they ſometimes ſtill farther diminiſh the number of their offspring, by putting to death the moſt feeble or moſt voracious. It is certain that they are no ſooner able to fly, than they baniſh them from the neſt, without ever allowing them to return. Famine is probably the cauſe of a conduct ſeemingly ſo repugnant to nature.

Eagles are remarkably voracious at all times, but more particularly in the breeding ſeaſon. It is then that they ſpread devaſtation among the kids, lambs, and all ſorts of game. *Smith* in his hiſtory of *Kerry*, relates that a poor man in that country, got a comfortable ſubſiſtence for his family, during a ſummer of famine, by robbing the eaglets of the food that was carried to the neſt by the parents. He ingeniouſly protracted the time of their imbecillity by clipping their wings and retarding their flight. If what is related by *Goldſmith* * be true, this is rather a dangerous undertaking; for, had the old eagles ſurpriſed the country man, while thus employed, their revenge might have proved fatal to him. "It happened ſome time ago," ſays that writer, "in the ſame country, that a peaſant had reſolved to rob the neſt of an eagle, that had built in a ſmall iſland, in the beautiful lake of *Killearney*. He accordingly ſtripped and ſwam

* Nat. Hiſt. vol. V. p. 92.

" ſwam in upon the iſland, while the old ones were a-
" way; and having robbed the neſt of its young, he
" was preparing to ſwim back, with the eaglets tied in
" a ſtring; but while he was yet up to his chin in the
" water, the old eagles returned, and miſſing their young,
" quickly fell upon the plunderer, and in ſpite of all
" his reſiſtance, diſpatched him with their beaks and
" talons."

Martin * records inſtances of two children being carried off by eagles at the breeding ſeaſon; but fortunately the theft was diſcovered in time, and the children were reſtored unhurt out of the neſts, to their affrighted parents: " Illæſum unguibus hæſit onus." It was probably from ſome daring adventure of this kind, that the fable took its riſe, of *Ganymede's* being ſnatched up to heaven by an eagle. They ſeem to have been extremely numerous and deſtructive in the northern parts of *Britain*. *Cambden* † mentions a law in the *Orkney* iſles, which entitles every perſon that kills an eagle, to an hen out of every houſe of the pariſh where the act was done.

The colours of the plumage of the eaglets are not ſo ſtrong, as they afterwards become in their adult ſtate; at firſt they are white, afterwards of a pale yellow, and then of a deeper and brighter hue of the ſame colour ‡. Age, famine, long captivity, and diſeaſes, make them gradually whiter. It is aſſerted that they live above an hundred years; and, that even after ſo long a period, it is not ſo much from old age they die, as from the impoſſibility of taking food, their bills being too crooked and incapable of receiving it. The eagles are not leſs remarkable

* Martin's hiſt. Weſt Iſles, p. 299.

† Britain, I.

‡ Buffon, tom. 16. p. 84.

markable for their power of ſuſtaining a long abſtinence from food, than for their longevity. Mr. *Pennant* mentions one in the poſſeſſion of *Owen Holland*, Eſq. of *Conway*, which he had kept for nine years, and the gentleman from whom he received it thirty-two. To the latter it had been ſent from *Ireland*, but at what age is not known. The abſtinence of this bird was cruelly tried by the neglect of ſervants, who had ſuffered it to endure hunger for twenty-one days without receiving any ſuſtenance whatſoever.

Eagles, when tamed, *M. Buffon* aſſerts, can be fed with any kind of fleſh whatever, even with that of their own ſpecies; and on a deficiency of fleſh, they will readily devour bread, ſerpents, or lizzards. When they are but imperfectly tamed, they attack dogs, cats, men, and every creature that attempts to approach them: their fierceneſs is rendered ſtill more formidable by the ſhrill, piercing, and lamentable cries which they utter. They drink but ſeldom, and when in a ſtate of freedom, probably none at all, the blood of animals then ſerves to quench their thirſt. Their excrements are always ſoft and humid, even in a greater degree than thoſe birds who drink frequently; and they are tinged with that whitiſh ſubſtance which mixes with the urine of all birds, and makes ſo great a part of its compoſition.

The eagle has been compared by naturaliſts to the lion; and there are many circumſtances, in which it muſt be allowed that they bear a ſtriking reſemblance to each other *: The former, endowed with force, maintains the ſame empire over the birds, that the latter does over the quadrupeds: Both are diſtinguiſhed by a magnanimity, which

* Buffon, tom. 16. p. 80.

which diſdains the inſults of the inferior tribes: It is not till after he has been long provoked by the impertinent clamours of the crow or the jackdaw, that the eagle is determined to puniſh him with death: neither has any property that has not been acquired by the rights of war; neither deſires any ſpoils that are not the fruits of his own victories; neither is ſo voracious as to devour the whole of his prey, but leaves his remains to leſs bold and ſucceſsful plunderers. The eagle, in a ſtate of freedom, however much famiſhed, will not ſtoop to carrion; and, when ſatiated, he never returns to the ſame carcaſe, but leaves it to other animals more rapacious, and leſs delicate than he. Equally ſolitary with the lion, he inhabits a deſert, of which he uſurps the ſole dominion, and drives away every other bird from chacing there; for it is as rare to find two pair of eagles upon the ſame mountain, as two families of lions in the ſame part of the foreſt. They keep far ſeparate, in order to ſecure an ample ſupply of food; and ſeem only to eſtimate their valour by the extent of their dominions, and the quantity of booty which they contain.

The reſemblance of theſe two animals does not ſtop here: if the vulture among birds comes in the place of the tiger among beaſts, the eagle ſeems equally well entitled to rank with the lion. His eyes ſparkle like thoſe of the lion, with the ſame fiery colour; his claws are of the ſame form; his breath is as ſtrong; and his cry equally loud and terrifying. Bred both for war, they are enemies of all ſociety; alike fierce, proud and difficult to tame, it requires the utmoſt pains and aſſiduity to bring them into ſubjection*. "An eagle," ſays *Goldſmith*,

* Buffon, tome 16. p. 81.

Smith *, " even though taken young, and brought under, " by long attention, is ſtill a dangerous domeſtic, and " often turns its force againſt its maſter. When brought " into the field for the purpoſes of fowling, the falconer " is never ſure of its attachment; that innate pride, and " love of liberty, ſtill prompt it to regain its native ſo- " litudes; and the moment the falconer ſees it, when " let looſe, firſt ſtoop towards the ground, and then riſe " perpendicularly into the clouds, he gives up all his " former labour for loſt, quite ſure of never beholding " his late priſoner more. Sometimes, however, they " are brought to have an attachment for their feeder: " they are then highly ſerviceable, and liberally provide " for his pleaſure and ſupport. When the falconer lets " them go from his hand, they play about and hover " round him till their game preſents, which they ſee at " an immenſe diſtance, and purſue with certain deſtruc- " tion."

The different ſpecies of eagles deſcribed by *M. Briſſon*, are diſtinguiſhed by the following characters; and the firſt that appears in the bold and formidable tribe, is,

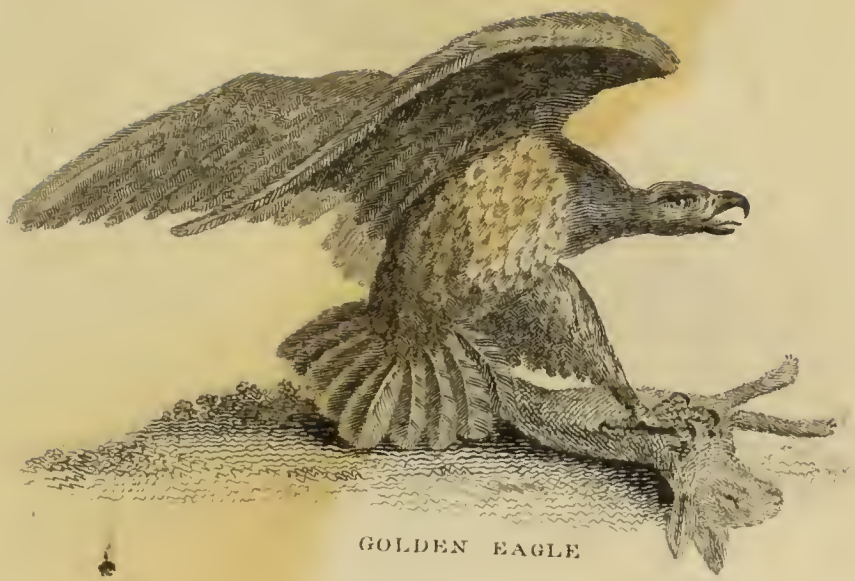
The Golden Eagle †.

THE whole body of this bird, above as well as beneath, is of a dark brown; the feathers on the back are finely ſhaded with a deeper hue of the ſame colour; the neck and head are covered with narrow ſharp pointed feathers of a reddiſh iron; the bill is three inches long, and of a deep blue; the tail is of a deep brown irregularly barred with

* Nat. Hiſt. vo . p. 90.

† Aquila chryſætos, Lin. Syſt.—L'aigle doré, Briſſon.

Plate III



GOLDEN EAGLE

SEA EAGLE

ERNE

with an obſcure aſh-colour; the legs are ſhort and ſtrong, covered with tawny iron coloured feathers down to the feet; the breadth of its wings, when extended, is ſeven feet four inches. It is an inhabitant of *Britain*, and moſt other countries of *Europe*.

The ancient *Romans* had this eagle painted on their ſtandards as their enſign of war. It was by them conſecrated to *Jupiter*; and to allow it to fall into the hands of the enemy, was deemed the higheſt diſgrace that could be entailed upon the military character. Its reſidence is in the warm latitudes of the old continent. As it does not travel to the north, it has not found its way into *America*; for, it is in that quarter only, that the two continents either meet, or approach to each other.

The golden eagle, like other birds of this genus, as we find by the teſtimony of ancient authors, was formerly trained to the chace. It was afterwards, however, baniſhed from the ſyſtem of falconry, being too heavy to be carried on the arm of the ſportſman, and too fierce and intractable in its manners ever to acquire the neceſſary diſcipline. It is furniſhed by nature with a formidable beak and claws; arms, which, when added to a body ſo heavy and robuſt, rendered this animal, in the moment of caprice or anger, an object of terror to its maſter.

The wings and limbs of the golden eagle are remarkable for ſtrength; his bones are firm, and his feathers hard. He is of a fierce and haughty aſpect; his flight is rapid, and all his motions indicate vigour and activity. Of all birds, this ſpecies is, perhaps, capable of taking the higheſt flights, and, on this account probably, it obtained the office of meſſenger to *Jove* in the fanciful mythology of the ancients. The ſight of this animal is quick and piercing, the index of a bold and independent ſpirit; ſuch at leaſt are the attributes aſcribed to Inde-

pendence by the poet, who ſtiles him, "Lord of the lion-"heart, and eagle eye." It is accordingly by this ſenſe, and not by the ſmell, that this bird is directed in hunting its prey. When he has ſeized his booty, he ſtops his flight, and for a moment places it upon the ground, as if to feel its weight, before he carries it away. Although his wings are ſtrong and expanſive, yet from the ſhortneſs of his legs, he finds a difficulty in raiſing himſelf, eſpecially when loaded with prey. This ſpecies, however, can carry off, with eaſe, geeſe, cranes, hares, and even lambs and young goats. When he attacks deer and calves, it is to glut himſelf with their blood upon the ſpot, or to carry morcels of them to feed his young.

His family commonly conſiſt of one or two eaglets, of which it is ſaid, that the mother kills the moſt weakly and infirm: This conduct ſo oppoſite to the dictates of nature, can only proceed from the moſt urgent neceſſity. It is only when the parents are unable to provide for themſelves, that they conſent to diminiſh the number of their offspring, or to baniſh them from the neſt before they are ſufficiently able to provide for themſelves. The eagles, when young, are white; afterwards they become of a pale yellow, which deepens as they advance. Age, faſting, diſeaſe, and captivity, gradually reduce them a-gain to their primitive white. It is aſſerted, that this ſpecies will live for more than a century, and that even then, their death is not ſo much occaſioned by age, as by the exceſſive incurvation of their bills, which prevents them from receiving food.

The Common Eagle *.

It is larger than a turkey-cock, being three feet from the point of the bill to the top of the tail. The whole body is of a deep brown tinged with ruſt colour; and it is diſtinguiſhed by a remarkable band of white upon the upper part of the tail. The legs are feathered to the feet; the toes are yellow, and the claws black. It inhabits the high mountains, and builds in the cliffs of a rock, and its airie has been frequently found in *Britain.*

The common eagles are much more numerous, and more extenſively ſpread than the golden eagles already deſcribed. They are found diſperſed over the cold as well as the warm latitudes, in the new, as well as the old world. It is ſeen in *France* †, *Switzerland* ‡, *Germany*, *Poland* §, and *Scotland* ||.

The Bald Eagle ¶.

In this ſpecies, the body is brown; the head, neck, and rectrices of the tail, white; the upper part of the legs are covered with brown feathers. It is found in *Europe* and *North America.*

* L'aigle, Briſſon. Facto fulvas, Lin. 125.

† Buffon, tome prem. p. 89.

‡ Garzopli. tab. xvi.

§ Klein, p. 42.

|| Sibbald, par. iii. p. 14.

¶ Leucocephalus, Lin. Syſtem. L'aigle a tete blanche, Briſſon.

M. *Buffon* contends, that this ſpecies comprehends in it three varieties *, which other naturaliſts have made ſo many ſpecies. His labours frequently have been more directed to this purpoſe, than its importance or utility ſeem to require. If ſuch birds, as other ſyſtmatics deſcribe, are allowed to exiſt, it is in vain to diſpute whether they are a ſpecies or a variety: Such cavils about arrangement, are unbecoming the genius of *Buffon*, who has ſet out with a contempt of all ſyſtem.

The manners of this ſpecies, are ſtill more cruel and unnatural, than thoſe of the common eagle; it is more ſlothful and voracious, conſequently lies under a ſtronger neceſſity of deſtroying or baniſhing its young, for which it is incapable to provide ſufficient ſupplies of food.

This voracity appears early among the young, which at a very early period, contend for the meat brought them by the parents, with ſo much fierceneſs and avidity, that they are forced to put an end to the diſpute, by putting to death one of the combatants. This ſpecies of eagle too, commonly attacks large animals with a view of drinking their blood upon the ſpot; and as they permit no corrupted fleſh to remain in their neſt, the young muſt often be unprovided; thoſe larger animals being much more ſeldom ſurpriſed, than the humbler victims of the common eagle's hunger. It has farther been remarked, that the bald eagle chaces only for a few hours in the middle of the day, while the common eagle is plentifully ſupplied by the efforts of a valour far more vigilant and indefatigable.

* Buffon, tome prem. pag. 98.

The White Eagle *.

This bird is white over the whole body. It inhabits the *Alps*, and the rocks upon the banks of the *Rhine* †.

The Spotted Eagle ‡.

This bird is of a deep iron colour; ſpotted under the wings and on the legs with white; the feathers of the tail are white at the beginning and at the top; the leg feathers are of a dirty brown: Its talons are black, and extremely ſharp; it lives principally upon rats, and is found in *Europe*.

The Fawn Killer, or Erne §.

The bill of this bird is rather ſtraighter than is uſual in the eagle, and probably for this reaſon it is claſſed by *Linnæus* among the vultures; but it has no claim to be ranked in that genus, for it is wholly feathered; whereas, the characteriſtical mark of the vulture, is, that the head and neck are either quite bare or covered with down. Both *Sibbald* ‖ and *Martin* deſcribe this ſpecies, which

* L'aigle blanc, Briſſon.

† This bird may be conſidered as a proof of the poſition laid down in the preliminary part of this volume; that cold has a tendency to whiten the colour of all animals.

‡ L'aigle tacheté, Briſſon.

§ L'aigle a gueue blanche, Briſſon.

‖ Hiſt. Scot. p. 14.

which they ſay is found in *Scotland*, and is extremely deſtructive to deer; it ſeizes this animal between the horns, and by conſtantly beating him about the eyes with its wings, he falls at laſt a victim to its fury *. The body and wings of the erne, are of a deep brown; the quill feathers very dark, the tail white, and the legs yellow and bare.

The Black Eagle †

Is of a blackiſh colour; the head and upper neck mixed with red; the tail feathers have one half ſpeckled with white and black, the other half blackiſh; legs covered to the feet with dirty white feathers. It is uncertain whether any of this ſpecies have been ſeen in *Britain*.

The Oſprey, or Sea Eagle ‡

Is inclining to white, with a mixture of brown; the belly is white, with iron coloured ſpots; the covert feathers of the wing whitiſh, thoſe of the tail black at their extremities. This ſpecies is found in *Ireland*, and ſeveral parts of *Great Britain*. The nakedneſs of the legs of this bird, is an indication that it ſeeks its prey on the waters; and all writers agree that it feeds principally upon fiſh, which it catches in its talons as they are ſwimming near the ſurface. It even takes ſalmon by the backs in this manner, and not by diving down upon them, as ſome have

* Hiſt. Weſt. Iſles, p. 37.

† Aquila melanætus, Lin. Syſt. L'aigle noir, Briſſon, i. 434.

‡ Le grand aigle de mer. Briſſon. Falco oſſipagus, Lin. Syſt.

have ſuppoſed *. In conſequence of theſe habits, the ſea eagle builds its neſt upon the ſhore, or on the ſides of rivers; it lays three or four white eggs, leſs than thoſe of a hen, and of an eliptical form. *Willoughby* mentions, that an eagle, which had its airie in the county of *Weſtmoreland*, ſoared aloft into the air with a cat in its talons. The reſiſtance of the cat brought both animals to the ground, when *Barlow* the engraver took them up, and afterwards cauſed the event to be engraved in his collection of plates †.

The oſprey is in ſize not inferior to the largeſt of this genus, being about three feet and an half in length, and about ſeven feet from tip to tip of the wings. It is diſtinguiſhed by a barb of feathers which hangs down below its chin, and which has procured it the name of the bearded eagle. The claws of this bird are admirably fitted for the purpoſes to which nature ſeems to have deſtined it; they form an entire ſemicircle, and are therefore retentive of the ſlippery prey. Thus accompliſhed, the oſprey takes up its abode upon the ſhore, or in the vicinity of freſh water lakes and rivers where fiſhes are plenty. Though he plunders the waters, his devaſtations are not always confined to that element alone; every kind of fowl and game being at times the victims of his rapacity. He carries off geeſe, hens, lambs, and kids. By theſe means, his young, as well as himſelf, are amply ſupplied with food. And it is even affirmed by *Ariſtotle*, that the female oſprey not only nouriſhes her young with affection, but alſo extends her regard to the miſerable eaglets of the other ſpecies which have been expelled by their parents, and adopts them into her family.

This

* Martin's Hiſt. Weſt. Iſles.

† Walpole's catalogue of engravers, p. 49.

This is not the only ſingular trait which this author has ventured to give of the oſprey; he alſo aſſerts, that the ſight of this ſpecies of birds is weak and imperfect by means of certain ſpecks, or ſcales that cover the pupil of the eye. From this circumſtance, he ſeparated the oſprey from the reſt of the eagles, and claſſed it with the owls. Theſe facts have not been confirmed by the obſervations of ſubſequent ornithologiſts; and it may therefore be juſtly queſtioned whether they be as true as they are marvellous. They fall, however, naturally under the notice of an author who has intituled his book, A *Treatiſe of Wonderful Things*.

Pliny, who ſeems equally fond of the marvellous with the *Greek* naturaliſt, in this matter far exceeds him in credulity. He aſſerts that the bald buzzards are not a diſtinct ſpecies capable of reproducing themſelves, but their young are oſpreys who produce large birds incapable of procreation, which he calls vultures. Such is the ſpirit of *Pliny*'s philoſophy *! So little did he regard the invariable laws of nature, that he credulouſly fancied that the groſſeſt chimeras of his imagination were a part of her ſyſtem.

The Bald Buzzard †.

THE length of this bird is nearly two feet; its breadth about five feet four inches; it is brown above, and white below; the back of the head is white; the lateral tail feathers, on the inner ſide, are ſtreaked with white; the legs are bare. This bird, as well as the former, lives upon

* *Vide* Hiſt. Nat. Liber x. cap. 3.

† Falco Haliætus, Lin. Aigle de mer, Briſſon.

upon fiſh, and builds its neſt among reeds on the ſhore. It takes its prey, not by ſwimming, but by darting upon it. *Linnæus* * has credulouſly deſcribed its left foot as palmated, after the tales of ancient writers. The *Italians* compare the violent precipitation of this bird upon its prey, to the fall of lead into water, and hence have called it *anguiſta piumbina*, or the leaden eagle. Thoſe who have opened this bird, have found fiſh in its ſtomach: Its fleſh favours of its food. It is leſs haughty and ferocious than the other eagles, and can be trained, it is ſaid, to fiſhing, as other birds are to the chace †. It is found through the whole of *Europe*, from *Sweden* to *Greece*, and on the coaſts of *Africa*.

Linnæus has borrowed the name *haliætus*, which he has given to this eagle, from the *Greek*. It is applied from the ſuppoſed predilection of this bird for the ſea. This preference of a maritime ſituation is not ſtrictly a fact. The bald buzzard is found in the moſt inland parts of the country, provided theſe are ſupplied with rivers. It might have, with equal propriety, been called a water eagle. *Ariſtotle* gave riſe to this name, as well as to an obſervation relative to the hiſtory of the bald buzzard, which it is extremely difficult to credit. He ſays, that theſe birds have a remarkably ſtrong ſight; that the old compel their young to look ſtedfaſtly at the ſun, and put ſuch to death as they find incapable of ſupporting the luſtre of his rays ‡.

* Haliætos, vectital piſcibus, majoribus anatibus; pes ſiniſtra ſubpalmatus, Syſt. Nat. Ed. x. tom. 1.

† Buffon, tome 15, p. 110.

‡ Nat. Hiſt. anim. lib. ix. cap. 34.

The Jean le blanc.*

THIS ſpecies is not found in *Britain*, but is very common in *France*, where the peaſants give it this name from the whiteneſs of its belly and under part of its wings: Above, it is of a browniſh grey; below, white ſpotted with brown: The tail feathers, on the outſide, and at the extremity, are brown; on the inſide, white ſtreaked with brown. It commonly neſtles on the ground among thickets; frequents cottages and farm houſes, where it plunders the hens and other poultry; it has a ſlow and heavy flight, and catches its prey rather upon the ground than in the air.

The *jean le blanc*, though claſſed by naturaliſts among the eagles, ſeems to have conſiderable affinity to kites and owls, both in its habits and external form. Like the latter genus, it chaces its prey moſt frequently in the morning and evening, and reſts during the middle of the day; although there is no evidence of its incapacity of bearing the ſtrongeſt light. Like the kite and other predatory birds of the ignoble kind, its wings are ſhort in proportion to the volume of its body; this is particularly obſervable in the female, whoſe ſize is a third larger than that of the male; hence, the ſlow and heavy motions which characteriſe this voracious tribe of thieves, which in *France* are the ſcourge of the poultry yards, and are execrated by every good houſewife.

Thus, in the numerous army of predatory birds, there is no empty ſpace in any of the ranks; and, in paſſing along

* Buffon, tome 16, 124.

along from the eagle and vulture tribes, the tranſitions to the kites and owls is rendered ſlight and almoſt imperceptible by the intervention of this ambiguous corps, whoſe cunning and voracity amply compenſate for its deficiency in ſwiftneſs and courage.

The *jean le blanc* commonly lays three eggs of pearl grey *; and, during her incubation, the female is abundantly ſupplied by her mate, who prolongs his attentions till the duty of rearing the family be fully diſcharged. It is then that the wants of the young give edge to the predatory habits of the parents. Hens, young turkeys, ducks, are then attacked with double fury; and, where poultry fails, rabbits, partridges, quails, lizards, and frogs, become the indiſcriminate victims of theſe rapacious invaders.

As the naturaliſts of *England*, *Germany*, and the north of *Europe*, make no mention of this noxious tribe, we may conclude that its reſidence is but local. That genus, the male of which is called the hen harrier, and the female the ringtail, has improperly been confounded with the *jean le blanc* by the *Engliſh* writers. Theſe two families have ſcarcely any other affinity than their hoſtility againſt the poultry yard.

The Eagle of Braſil †.

COLOUR blackiſh brown; mixed aſh-colour in the wings; the tail feathers white; the legs naked.

This bird is about half the ſize of the *Oroonoko* eagle deſcribed below; it has no creſt of erect feathers upon

* Ornitholo de Salerne, p. 23.

† Briſſon, tome i. page 445.

the head, and by the native *Braſilians* it is diſtinguiſhed by the name of *uzubitinga* *.

The Oroonoko Eagle †

Has a tuft conſiſting of four feathers upon its head; above, it is blackiſh brown; below, white ſpotted with black; the upper part of the neck yellow; tail feathers brown; the legs are covered to the feet with white and black feathers. This bird is ſuppoſed, by *M. Buffon*, to be the ſame with that mentioned by *Edwards*, by the name of the crowned *African* eagle ‡. The diſtance of *Africa* from the coaſt of *Braſil*, is only four hundred leagues, a ſpace, which by birds of ſuch high and rapid flight, may eaſily be paſſed over.

Theſe birds, though the natural inhabitants of that diſtrict of *America*, which borders on the *Oroonoko*, paſs frequently over to the *Antilles*. They were there ſeen by *Du Tertre*, who gives the following account of them §. There paſſes frequently into theſe iſlands, a ſort of large bird, which may challenge the firſt rank among the predatory tribes of the New World. The firſt inhabitants of *Tobago* called it the *Oroonoko* eagle, from its large ſize, and the reſemblance of its form to the figure of that noble bird. In that iſland, it is only a bird of paſſage; its common reſidence being in thoſe vaſt tracts that are watered by *Oroonoko*. The whole of its plumage is a bright grey, except the extremities of the wings and tail

* Marcgrave's Hiſt. Nat. Braſ. p. 214.

† Brown's Hiſt. Jam. p. 472. L'aigle huppé du Braſil, Briſſon.

‡ Edwards Par. I. p. 34.

§ Hiſt. Nat. des Antilles, p. 159.

tail, which are bordered with yellow; its eyes are piercing and lively; the wings are ſo very long, that notwithſtanding of its great weight, it flies with quickneſs and rapidity. It derives its ſubſiſtence by preying upon other birds, upon which it darts with fury, and having daſhed them to the ground, it tears them to pieces and devours them. It attacks the arras and paroquets, and what is remarkable, never deigns to ſurpriſe its prey while on the ground, or perched upon a tree, but watches till it has taken its flight, and boldly aſſails it in the regions of the air.

The Eagle of Pondicherry *.

This is the moſt beautiful of all the rapacious birds. It is of a cheſnut colour, and leſs by an half than the ſmalleſt of the eagles; a circumſtance which ought perhaps to exclude it from their genus. It is the moſt remarkable bird of prey in the eaſt. The *Malabares* have made it the object of religious homage; but it ſeems, that the beauty of its plumage, rather than its ſize or ſtrength, has gained it divine honours. It is about the ſize of a falcon, and is found in the kingdom of *Viſapour*, and in the territories of the great *Mogul* †.

* L'aigle de Pondicheri, Briſſon.

† Ornithol. de Salerne, p. 8.

Section IV.

Falcons.

The hiſtory of Falconry.

This ſpecies of birds, from its connection with our amuſements, is of ſtill greater importance than the vulture or the eagle. The falcon, though diminutive in ſize, is not inferior to the eagle, either in courage or generoſity, and its ſubſerviency to our pleaſure, has made it an object of ſtill greater curioſity. The diverſions of mankind, vary according to their different ſtages of improvement, from a rude to a civilized ſtate. In proportion as population increaſes, agriculture is improved, and the lands are incloſed. While the purſuer is thus continually retarded below, nothing can ſtop the object of his purſuit above; hence, thoſe rural ſports muſt decline, in which the game muſt be purſued over a long extent of country.

In certain ſtages in the progreſs of nations, the amuſement of hawking ſeems to be almoſt univerſal; and, from the teſtimony of travellers, birds of this ſpecies appear to be common in almoſt every quarter of the globe. They are taken in great numbers in the iſlands of the *Mediterranean*, and upon the coaſt of *Barbary*. They abound in the kingdom of *Tunis*; and, among the *Arabs* *, conſtitute the principal amuſement of men of rank. They are ſtill more frequent in the empire of the *Mogul*, and

* Dr. Shaw's Travels, vol. I. p. 389.

Plate IV

PEREGRINE FALCON
GYRFALCON
FALCON GENTLE
VARIETY OF FALCON GENTLE

and in *Perſia*, where it is alleged that the art of falconry is cultivated above every other *. In *Japan*, they are kept as an article of equipage rather than for ſport †. *Kolben* mentions the falcons of the *Cape* of *Good Hope*, and *Boſman* thoſe of *Guinea*. There is no quarter of the ancient continent where falcons are not found.

Falconry, although now in a great meaſure diſuſed, was the principal amuſement of our anceſtors. A perſon of rank ſcarce ſtirred out without a hawk on his arm, which, in old paintings, is the criterion of nobility ‡. *Harold*, afterwards king of *England*, when he went on a moſt important embaſſy into *Normandy*, is painted embarking with a bird on his fiſt, and a dog below his arm. "In thoſe days, it was "thought ſufficient for noblemen's ſons to wind their "horn and carry their hawk fair, and leave ſtudy and "learning to meaner people §." In every country of *Europe*, this diverſion was in ſuch high eſtimation, that *Frederick*, one of the emperors of *Germany*, did not think it below his dignity to write a laborious treatiſe upon falconry.

The hiſtory of this amuſement would preſent to the reader a lively image of feudal tyranny and barbarity, were it minutely purſued. Thoſe extenſive tracts which each chieftain ſeized, were but thinly inhabited, and poorly cultivated; the wild animals that occupied them were his ſole property, and the right of killing them his moſt valued prerogative, and his only amuſement. Before the culinary art was brought to its preſent perfection, game was almoſt the only delicacy of the table, as hawking

* Dampier's Voyages, vol. II. p. 25.

† Kempfer Hiſt. du Japan.

‡ Brit. Zool. vol. I. p. 132.

§ Biog. Brit. article Caxton.

hawking was the only means by which it could be obtained. Hence, the avidity with which this diverſion was purſued; hence too, the multiplied and vigorous penalties by which hawks and game were preſerved. In every *European* kingdom, the complicated ſyſtem of game laws, is the laſt bulwark that ſeems to reſiſt the encroachments of freedom. Even in thoſe countries where liberty is eſtabliſhed, theſe laws are permitted to remain a diſgrace to legiſlation and to the liberal ideas of a commercial age.

This amuſement, which among our anceſtors, diſplayed the pride of the rich, and the ſlavery of the poor, was attended with vaſt expence. In the reign of *James* I. Sir *Thomas Manſon* is ſaid to have given a thouſand pounds for a caſt of hawks; an amazing ſum, if we conſider the value of money in that age *. At a period when the people had no rights, and conſequently were not reſpected, we are not to wonder at the rigour of the laws, enacted to preſerve a pleaſure that was purchaſed at ſo extravagant a rate. In the reign of *Edward* III. it was made felony to ſteal a hawk; to take its eggs, even in a perſon's own ground, was puniſhable with impriſonment for a year and a day, beſides a fine at the King's pleaſure †. In the reign of Queen *Elizabeth*, the impriſonment was reduced to three months; but the offender was to find ſecurity for his good behaviour for ſeven years, or to lie in priſon till he did procure it. "Such," ſays *Pennant*, "was the enviable ſtate of the "times in *England*. During the whole day, our gentry "were employed with the fowls of the air or the beaſts "of the field. In the evening, they celebrated their ex-

"ploits

* Sir Ant. Weldon's Court of K. James, p. 105.

† Pennant's Brit. Zool. p. 733.

" ploits with the moſt abandoned and brutiſh ſottiſhneſs :
" At the ſame time, the inferior ranks of people, by the
" moſt unjuſt and arbitrary laws, were liable to capital
" puniſhment, to fines, and the loſs of liberty, for de-
" ſtroying the moſt noxious of the feathered race."

Nothing is more arbitrary, or involved in greater uncertainty, than the claſſification of hawks : A man's life ſeems hardly ſufficient to acquire a perfect knowledge of all the ſpecies, and endleſs varieties which ſome naturaliſts pretend to deſcribe of this bird. They are, however, in reality, far leſs various than the pigeon, or common poultry ; becauſe the influence of man upon their nature is leſs conſiderable. We neither rear them, nor multiply their ſpecies ; and, however uſeful to our pleaſures they may be, whatever habits we may give them for that purpoſe by taming the individual, the ſpecies remains always wild *. But as no birds are ſo liable to change the colours of their feathers, the two or three firſt years of their lives, the number of hawks has been, on this account, multiplied far beyond the reality. Another cauſe of the needleſs increaſe of the ſpecies of this tribe, has ariſen from the various names given to the ſame birds at different periods of their lives by writers on falconry. The falcon, the falcon gentle, and the haggard, are made diſtinct ſpecies, whereas they form only one. If it is taken in the months of June, July, or Auguſt, it is named *gentle* ; if after its firſt moulting, it is termed *haggard* †.

Of thoſe falcons anciently trained for the chace, we know only the names : The exact ſpecies are ſo imper-

* Buffon, tome 16, p. 250.

† La Fauconneric de Charles d'Arcuſſia, ſeigneur d'Eſparron.

fectly described, that one may easily be taken for another. The gyrfalcon, the falcon, the lanner, the sacre, the hobby, the kestril, and the merlin, are those most commonly in use, both in this country and abroad; and these kinds were formerly mostly natives of *Britain*. These are called the long-winged hawks, to distinguish them from the more ignoble tribes of goshawks, sparrow hawks, kites, and buzzards, which are too slow, obstinate, or cowardly, to be serviceable in the exercises of the field.

These birds are more docile, spirited and bold than the rest; they do not come upon their prey in a horizontal direction like the goshawk, but dart perpendicularly from the clouds, like a ball of lead, upon the devoted victim of their hunger. From the length and shape of their wings, they possess a remarkable velocity. These wings hang down, when closed, as far as the top of the tail; the first feather of each is nearly as long as the second, and terminates in a sharp point. The baser kinds have shorter wings, and the first feather is rounded at the extremity, which is the cause of their slow and heavy motion *. If pheasants are to be found in his neighbourhood, the falcon prefers them to every other kind of prey. His descent from the clouds upon them, is so sudden and unexpected, that he seldom misses his aim. He frequently too attacks the kite, either to exercise his courage, or to deprive him of his prey; but he rather insults than injures him. He chaces him like a coward; and, though he seldom puts him to death, he beats him about with disdain, apparently despising his flesh, as much as he does his dastardly manners †.

Such

* Goldsmith's Nat. Hist. vol. V. p. 120.

† Buffon, tome 16.

Such are the natural habits of theſe birds, upon whoſe education our anceſtors beſtowed ſo much pains and aſſiduous attention, that the art of taming and managing them was the moſt complicated then known. Many were the volumes and treatiſes they wrote upon the ſubject, which, like the diverſion itſelf, are now almoſt utterly forgotten. Every ſcience when much cultivated, has a language peculiar to itſelf, which none but thoſe who are verſant in it are capable to underſtand. The language of falconers was entirely profeſſional: They took a pleaſure in the uſe of technical phraſes peculiar to the art, and which, to all but themſelves, form a jargon utterly unintelligible. *Goldſmith* has extracted a ſpecimen of inſtructions, delivered by *Willoughby*, by which the modern reader will perhaps be more amuſed than edified: He bids us "draw our falcon out of the mew, twenty "days before we enſeam her. If ſhe truſs and carry, "the remedy is, to coſſe her talons, her powſe, and petty "ſingle." In ſuch myſterious and cant phraſes did our forefathers wrap their knowledge of a profeſſion, which, in ſpite of all their efforts, time has rendered unimportant and ridiculous.

It was not to the generous race of falcons alone, that the labours of the falconer were confined: Several of the more ſluggiſh and ignoble birds were tamed by thoſe of inferior rank, who could obtain no better. The former, however, were the neceſſary appendages of all perſons of high ſtation, and, from their ſwiftneſs and docility, were always conſidered as moſt proper for the field. When completely trained, their docility was ſo remarkable, that they obeyed not only the commands, but the ſigns of their maſter. They remained quietly perched upon his hand till their game was ſhuſhed, or elſe kept hovering round his head, without ever leaving him till he gave

them permiſſion. In their wild ſtate, their courage is ſuch, that, like conquerors in a country they have ſubdued, they keep all birds in awe and ſubjection to their proweſs. Such as ſeem to diſregard the kite or the ſparrow hawk, are ſeen to fly ſcreaming with terror at their approach, and, like peaſants before a victorious army, every one of them haſtening to ſhelter himſelf. Captivity probably does not exalt their ſpirit. They are trained, however, in that ſtate to attack birds, which they do not attempt when wild. The young falcon, from his raſhneſs in attacking geeſe and barnacles, expoſes himſelf at times to a ſevere chaſtiſement, till he learn from experience to check his temerity in meddling with ſuch unwieldy game.

Section V.

The Gerfalcon *.

This bird is nearly of the ſize of the oſprey, and ſtands foremoſt in this undaunted tribe. When falconry was practiſed, he was uſed for the larger kinds of game, cranes and herons. His bill is yellow, and very much hooked; the throat is white; and the whole plumage of the ſame colour, but marked with duſky lines, ſpots or bars. After the eagle, this is the moſt noble and generous of all the birds. He has been tranſported from *Iceland* and *Ruſſia*, into all the countries of *Europe*, for the purpoſes of the chace; and his courage does not ſeem diminiſhed by the heat of theſe different climates.

The

* Le gerfaut, Briſſon. Faucon, Buffon.

The gerfalcon not only ſurpaſſes the reſt of the tribe in ſize, but he alſo poſſeſſes all thoſe diſtinctive marks which have been obſerved by the connoiſſeurs to diſcriminate the nobler kinds, which are capable of education, from the baſer and more intractable tribes. The generous birds trained for the purpoſes of falconry, are diſtinguiſhed by the length of their wings, which reach commonly to the tip of the tail; the firſt feather too, of each wing, is nearly of equal length with the ſecond, and inſtead of being rounded at the end, as in the baſe kinds, terminates like a lance in a long ſharp point. The kites, goſhawks, and buzzards, have ſhort rounded wings which render them as unfit for the rapid evolutions of the chace, as their baſe and intractable diſpoſitions, make them incapable of receiving the education neceſſary for that favourite exerciſe.

Falconers have recogniſed three ſpecies, or rather varieties of the gerfalcon; that of *Iceland*; that of *Norway*, more docile and courageous than the former; and the white; all three common in the northern parts of *Europe* and *Aſia*. As theſe birds are all found nearly in the ſame latitudes, and are peculiar to the cold regions, their difference of colour probably is not the effect of climate, nor of age; they may therefore be regarded as conſtant and diſtinct families *.

Their courage renders them a match for the largeſt birds: Againſt the ſtork, the heron, and the crane, they are eaſily victorious. They kill hares by darting from the air upon them; the female is moſt frequently employed in thoſe daring enterpriſes, being a third larger in ſize, and much ſtronger than the male, who is employed by the falconer againſt herons and crows, and from the inferiority of his ſize, is called the tiercelet.

* Buffon, tome 16, page 241.

The Peregrine Falcon *.

THIS bird is of the ſame ſpecies with the common falcon, of which there are many varieties, very properly reduced by M. *Buffon* to two †, the falcon gentle, and the peregrine; both are much leſs than the ger, and are about the ſize of a raven. The falcon gentle, moults in March; the peregrine, not till the middle of Auguſt.

The Lanner ‡.

THIS ſpecies is very little known in *Europe*. It breeds in *Iceland*; and was ſaid to be very frequent in *France*. Mr. *Pennant* has given a deſcription of one that was caught, while purſuing wild ducks, under the nets. It is known, ſays *Belon*, by the blueneſs of its legs and feet, and by its ſpots, which are along, and not acroſs the feathers, as in the other hawks.

The Sacre.

THIS is a race nearly allied to the lanner, and, like it, extremely rare. *Belon* is perhaps the only naturaliſt who has ſeen and deſcribed them both. The legs and feet of this bird, like thoſe of the lanner, are blue; the plumage of a dirty brown, inferior in beauty to the other birds

* Le faucon pelerin, Briſſon.

† Buffon, tome 16, p. 262.

‡ Falco lannarius, Lin. Syſt. Le lannier, Buffon.

Plate V

birds in the records of falconry. It is nearly of the ſize of the common falcon, but of a rounder ſhape; equal in courage and ſtrength to the peregrine; it is held a bird of paſſage. Few can boaſt, ſays *Belon*, of having ſeen its neſt *.

The Goſhawk †.

THE goſhawk is larger than the common buzzard, but of a longer and more elegant form. Both it and the ſparrow hawk have their wings, when cloſed, ſhorter than the top of the tail. The beak of this bird is of a dirty blue, and the cere at its baſe yellowiſh green. M. *Buffon* kept two of theſe birds for a conſiderable time in the ſame aviary; but though a male and female, he never found they ſhewed the ſmalleſt affection for each other: on the contrary, after they had remained five months together, the female killed the male in a tranſport of rage during night. When left at liberty among other hawks, they infallibly deſtroy them one after another ‡.

The Kite §.

THIS bird is eaſily diſtinguiſhed from the other ſluggiſh and rapacious kinds, by his forked tail and his ſlow floating motion. He is never at reſt; to him flying ſeems both natural and eaſy; and he may be ſaid to ſpend his life

* Belon Hiſt. des Oiſeaux, p. 108.

† L'autour, Briſſon. Falco palumbarius, Lin. Syſt.

‡ Buffon, tome 16. p. 234.

§ Falco milvus, Lin. Le milan royal, Briſſon.

life in the air. The manner in which he plies his wings, has often been admired. They are at times altogether without motion; and it is by his tail alone that he directs his evolutions. He raiſes himſelf without effort, and deſcends as if he were ſliding along an inclined plain. He ſlackens, then quickens his movement, again ſtops his flight, and hangs as if motionleſs in the boſom of the air for hours together *.

With all this apparent eaſe in flying, he ſeldom chaces; for there is hardly any bird that cannot make good his retreat againſt him. "He may therefore be conſidered "as an invidious thief, who prowls about, and when he "finds a ſmall bird wounded, or a young chicken ſtray-"ed too far from the mother, inſtantly ſeizes the hour "of calamity, and, like a famiſhed glutton, is ſure to "ſhew no mercy." The kite, in his diſpoſitions and manners, ſomewhat reſembles the vulture, his ſuperior in rank and ſtrength: His deficiency of ſtrength, however, is fully compenſated by his numbers. Kites are to be found in the vicinity almoſt of every cottage; and of all animals they are the moſt incommodious neighbours. They were formerly kept in *France* for the entertainment of the Royal Family †, by their combats with the ſparrow-hawk or falcon. Though poſſeſſed of arms, force, velocity, and every quality which ought to inſpire him with courage, this daſtardly animal flies before an enemy not above half his ſize. He riſes by continual windings in the air, as if he wanted to conceal himſelf in the clouds, till he is overtaken by the hawk, who beats him down by repeated ſtrokes of his wings and beak, till at laſt

* Buffon, tome 16. p. 199.

† Hence, the French give it the name Milan Royal.

laſt he brings him to the ground, leſs hurt than beaten; rather vanquiſhed by his own fears, than the force of his enemy *.

The Buzzard †.

THIS bird is ſtill more common than the kite. It breeds in large woods, and builds commonly in an old crow's neſt, which it lines anew with wool. It is more remarkable for attachment to its young than the other tribes of rapacious birds, which, as we have already noticed, ſometimes drive them, while yet helpleſs, from the neſt. The buzzard aſſociates with her young for ſome time after they are introduced into the field; and the cock, it is ſaid, will hatch and rear the young, if the hen is killed ‡. In other reſpects, this is a more ſluggiſh and inactive bird than the reſt of the hawks; he will remain a whole day perched on the ſame bough, and ſeldom removes to any great diſtance from his uſual reſidence. In his choice of food, he gratifies his native indolence, and eats mice, worms, or inſects, which are eaſier taken than birds that muſt be purſued. The moor buzzard, the honey buzzard, and the hen harrier, ſeem but varieties of this ſluggiſh tribe.

* Buffon, tome 16.

† Falco Buteo, Lin. La Buſe. Briſſon.

‡ Ray's Letters, p. 352.

The Hobby *.

THIS ſpecies is much ſmaller than that of the common falcon, and differs from it no leſs in its habits than in ſize. The falcon is fierce, ſpirited, and courageous; and will attack an enemy far ſuperior to him in bulk. The hobby is of a cowardly diſpoſition; for unleſs his natural timidity be overcome by education, he will only encounter larks or quails. But theſe defects in ardour and intrepidity in him, are amply compenſated by an indefatigable induſtry. No ſooner does the ſportſman or his dog appear, than he purſues cloſely their tract, or ſwims above them in the air, and ſeizes upon the ſmall birds that riſe before them. Should the dog ſpring a lark or a quail, and the ſportſman miſs his aim, the hobby inſtantly dives upon the devoted bird, and ſeldom miſſes his. He betrays no ſymptoms of fear at the report of a muſket, and ſeems ignorant of the effects of fire arms; hence, he is often ſhot by the ſportſman while devouring his prey.

The hobby moſt commonly frequents the plains in the vicinity of woods, and particularly thoſe where larks abound. Theſe he deſtroys in vaſt numbers; and ſo deeply are they impreſſed with the antipathy of this mortal enemy, that they never perceive him appproach without being ſtruck with a terror that precipitates them from the air, in order to hide themſelves in the brambles or graſs, the only method by which they can avoid their deſtroyer; for, although the lark can riſe high, the hobby can mount higher

* Le Horbeau, Buffon.

higher than it. This power of flying high, formerly rendered him an object to the falconer. He was docile, and capable of acquiring every branch of diſcipline, and was in high repute in the chace of partridges and quails.

The keſtril, the ſparrow hawk, and the merlin, cloſe the race of hawks. Of theſe, the laſt merits a more particular deſcription.

The Merlin *.

This ſpecies reſembles the falcons in every thing but ſize; it has the ſame plumage, the ſame figure, and is diſtinguiſhed by the ſame courage and docility. Though it only weighs five ounces and an half, it was formerly trained to chace quails and partridges, which it would kill by a ſingle ſtroke on the head. It nearly reſembles the hobby, the rock hawk, and the keſtril; theſe ſmall ſpecies run ſo near into each other, that naturaliſts can hardly diſtinguiſh the ſpecies from the varieties of the ſame bird †.

The purſuit of the lark by a couple of merlins, is reckoned the moſt delightful ſpectacle which this ſort of exerciſe can afford. They act in concert; and while the one ſoars high in the air to ſtrike his prey from above, the other watches its motions below; ſo that the devoted lark cannot eſcape their united efforts.

To theſe various tribes of the hawk kind found in *Europe*, which the limits of this work will not permit us more particularly to enumerate or deſcribe, we might add ſeveral birds in different parts of the globe, which

* L'Emerillon, Briſſon, i. 382.

† Buffon, tome 16, p. 288.

Buffon and other naturaliſts commonly refer to this genus. The moſt remarkable of theſe, is the red hawk of the Eaſt Indies *, deſcribed by *Aldrovandus*. The bill is large, and but little bent, yellow at the baſe, and aſh-coloured towards the top. The male, like thoſe of the *European* kinds, is a third ſmaller than the female. The back and upper parts of the body are of an aſh-colour, bordering upon brown; the lower parts are of a deep orange, verging to red; in the male, the colours are all brighter and deeper than thoſe of the ſame parts in the female.

Another ſpecies in the ſame quarter of the world, *Willoughby* † deſcribes as of the ſize of a goſhawk, and diſtinguiſhed by a creſt riſing from the top of the head and hanging down upon the neck in two diviſions. The upper parts of this ſpecies are black; the under are marked with alternate bars of white and black.

A third ſpecies of theſe birds is found in *Africa*, called *Fanas* by the negroes upon the coaſt of *Senegal*. It has been brought to *Europe* by Mr. *Adamſon*, and deſcribed by the name of the *fiſhing hawk*. In colour and ſize, it does not materially differ from the *European* falcon, but is diſtinguiſhed from all other birds of the tribe by a long creſt of pendent feathers, which riſe from the crown of the head, and hang behind the neck. Both its mandibles are ſerrated; and in its habits as well as its external form, it is totally different from every ſpecies known in *Europe*; for, it is more addicted to fiſhing than to the chace. The ſerræ upon its bill, are probably intended by nature, to qualify it for ſuch a manner of life.

* Falco rubeus Indicus. Av. p. 496.

† Willoughbii Ornith. p. 48.

Plate VI

HEN HARRIER
LONG EARED OWL
SHORT EARED OWL
BROWN OWL
EAGLE OWL

Section VI.

Genus III.—*Owls.*

The characters of this genus are, the bill hooked, and covered at the baſe with briſtles, inſtead of that membraneous ſubſtance called the cere in other predatory birds. The noſtrils of owls are oblong, and their tongues cloven at the end; the heads are, in every ſpecies, remarkably large, and in ſome, the large aperture of the ear is covered with a tuft of feathers reſembling horns; their claws are hooked and ſharp; and the outer toe capable of turning backward like that of the parrot *.

The eyes of theſe birds diſtinguiſh them from every other genus; they are large and protuberant, and poſſeſs ſuch exquiſite ſenſibility, that they are dazzled by the full light of day, and altogether overpowered by the rays of the ſun. As among quadrupeds, thoſe of the tiger and cat kind, by the ſtructure of their eyes, are capable of ſeeing in a faint light, ſo among the feathered race, this numerous tribe is fitted for plunder amid the darkneſs of night, when the other animals are overpowered by ſleep †. "In theſe birds," ſays *Goldſmith*, "the pupil of the eye is capable of opening very wide, "or ſhutting very cloſe; by contracting the pupil, the "brighter light of the day, which would act too power-"fully on the ſenſibility of the retina, is excluded; by "dilating the pupil, the animal takes in the more faint "rays

* Pennant's Genera of Birds.

† Buffon, tome 16. p. 317.

" rays of the night, and thereby is enabled to ſpy its " prey, and catch it with greater facility in the dark."

We are not to imagine that the eyes of theſe animals, which are ſo perfectly fitted for a feeble light, can ſee without it altogether, or are capable of penetrating into abſolute darkneſs. On the contrary, in the dead of night it is probable that they ſee but little, and reſemble the hares, wolves, and ſtags, who iſſue from the woods to feed, or to chace in the night; only the eyes of theſe animals ſeem leſs dazzled by the full glare of the rays of the ſun. It is in the twilight, or at the dawn of day, that the owls are beſt fitted for ſeeing; it is then they iſſue from their dark retreats to chace or ſurpriſe their prey. Their ſearch is generally ſucceſsful; for, at theſe hours of reſt, the little animals are off their guard, and incapable of eluding their ſearch.

Except during the nights of moon-ſhine, their time of chace is but very ſhort; for they generally retire to their lurking places, before they are ſurpriſed by the profound gloom of midnight, or the ſtill more intolerable beams of the ſun. Moonſhine is their harveſt; a ſeaſon of pleaſure and abundance; for then they protract their flight for ſeveral hours, and lay up an ample ſtore of proviſion *. If, from the ſcarcity of game, they continue their ſearch longer than uſual, and following the dictates of appetite rather than of prudence, wait till broad day light breaks upon them, they are bewildered, dazzled, and confounded, and however far from their home, are obliged to remain in the ſame ſpot till the return of evening. If you force them away, they make ſhort ſlow flights, as if afraid of daſhing againſt ſome unſeen

* Buffon, tome 16. p. 317.

unſeen object. If the other birds perceive, by his awkwardneſs or fear, the diſtreſs of the owl's ſituation, they fly with emulation to inſult him. The thruſh, the jay, the bunting, and the red-breaſt, attack him in a body, with cries, inſults, and ſtrokes of their wings: The unfortunate owl knows not how to defend himſelf, or where to fly; "aſtoniſhed and dizzy, he only replies to their "mockeries by awkward and ridiculous geſtures, by rolling his eyes, and turning his head with an air of "ſtupidity *." Among this tribe of tormentors, the ſmalleſt and moſt feeble of his enemies, are commonly the foremoſt; and by a miſtake ſimilar to what the owl himſelf has committed, they ſometimes prolong their inſults till the return of evening reſtores him the uſe of his ſight. Then he becomes truly formidable, and inflicts on his tormentors dreadful revenge for their ill-timed audacity.

All the different ſpecies of owls, are not equally diſtinguiſhed by ſenſibility in the organs of ſight; and conſequently not equally overpowered by the light of day. The great owl of *North America* takes conſiderable flights, and is ſometimes ſeen chacing its prey ſucceſsfully in broad day; while the common barn owl, far from being able to encounter the full rays of the ſun, poſſeſſes ſuch ſenſibility of viſion, that it catches mice even in the middle of the night. This difference in the ſight of owls, regulates the time of their depredations; ſuch as neareſt reſemble other birds, iſſue from their retreats immediately after the ſetting of the ſun; the more quick ſighted, remain concealed till further in the evening, when they

* Buffon, tome 16. p. 317.

they fall with deſtructive ſucceſs on the ſmaller birds, in the midſt of that ſeaſon of repoſe *.

The owls in general conceal themſelves in ſome dark retreat during the day; the cavern of a rock, the hollow of a tree, or the holes of a ruinous and unfrequented caſtle, are the ſolitary abodes preferred by theſe gloomy birds: There, they often render the ſolemnity of theſe dreary haunts tremenduous by their hideous cries. The harſhneſs of their notes, the darkneſs and ſilence during which they are heard, joined to the gloomy habitations where theſe birds dwell, have always ſtrongly affected the imaginations of men, and given riſe to melancholy ideas. The prejudices and weakneſs of the uninformed part of mankind, alarmed by theſe frightful images, have always led them to regard the voice of the ſcreech owl, as a preſage of ſome ſad calamity that awaited them. It is only, however, when the owls are ſtationary, that they utter theſe doleful notes; while in purſuit of their prey they are all ſilent, as the ſmalleſt noiſe might alarm the birds which it is their endeavour to ſurpriſe.

The Great Horned Owl †.

THIS bird, by ſome, has been called the eagle owl; and at firſt ſight it appears nearly of that ſize, from the great quantity of feathers with which it is covered. It is different from the eagle in every proportion, the head being larger, and all the parts of the body leſs than in the birds of that genus. The breadth of its wings is about five

* Buffon, tome 16. p. 319.

† Le grand duc, Briſſon.

five feet; the head disproportioned to the size of the body; and the cavities of the ears are large and deep. On each side of the head there rise two tufts of feathers resembling horns, two inches and an half long, which the animal can erect or fold down at pleasure. His beak is black and hooked; his eyes large and transparent, and surrounded with an iris of an orange colour; his neck is short, and the whole body covered with a reddish brown plumage, interspersed on the back with yellow and black spots. There are several varieties of the great owl; the *Italian* and *Virginian* are particularly described by *Brisson*; but their difference is too minute to be ascertained without a view of each. This bird has a frightful cry, by which he interrupts the silence of the night. He inhabits rocks and old towers, the most retired he can find. He chaces hares, rabbits, moles, and mice, which he swallows entire; but the hair, bones, and skin, which resist the action of the stomach, he vomits up in round balls. There is no bird more successful in taking its prey, or whose young are so abundantly supplied with food. He often wages war with the kite, and deprives him of his booty: As he bears the light better than the other nocturnal birds, he defends himself with great bravery against the crows, which sometimes pursue and attack him by day *.

The Long-eared Owl †.

This species is found in *Britain*, and is much less than the former, being only three feet and an half in breadth,

* Buffon, tome 16, page 336.

† Le moyen duc, Brisson. Strix otus, Lin.

whereas the other is five. Its horns are much ſhorter, and riſe above the head only an inch, more reſembling the ears of quadrupeds than their horns. They conſiſt of ſix feathers variegated with yellow and black. The breaſt and belly are of a dull yellow, marked with ſlender brown ſtreaks pointing downwards. Varieties of this kind of owl are to be found all over *Europe*, and in many places of *America*. Thoſe of *Carolina*, deſcribed by *Cateſby* *, and thoſe of *South America* by *Feuillée* †, differ only in the ſhades and diſtribution of their colours; a circumſtance which may ariſe from the climate. Theſe birds are ſeldom at the trouble of building a neſt; their eggs and their young, have always been found in the neſts of pies or kites, that were deſerted by their original owners. Their young are generally four or five in number; and white, when protruded from the ſhell.

This ſpecies is much more common and numerous than the preceding, which is rarely to be found with us in winter; whereas the long-eared owl is found every ſeaſon of the year. Its ordinary habitation, is in the walls of old buildings, in the cavities of rocks, in the hollow of decayed trees, chiefly in remote ſituations. It but rarely deſcends from theſe retreats into the plain. When attacked by other birds, it makes a vigorous defence with its claws and beak; and when aſſailed by an enemy too powerful, it turns upon its back to have the more ready uſe of theſe means of protection ‡.

* Nat. Hiſt. of Carolina, p. 7.

† Obſervat. Phyſiq. p. 59.

‡ Buffon, tome 16, p. 344.

The Little Horned Owl *.

THIS bird is eaſily diſtinguiſhable from the two former, by its ſmall ſize, being only ſeven inches long; and by the ears, which only riſe about half an inch from the head, and are compoſed of a ſingle feather. The head is much ſmaller in proportion to the body, than thoſe of the two laſt deſcribed; and the feathers are more beautifully variegated with brown, black, and red. The far greater part of this ſpecies emigrate during winter. They aſſemble in flocks, about the end of Summer, and take their departure nearly at the ſame time. They purſue the field mice in multitudes together, and in *France* and *England* †, are of great ſervice in deſtroying theſe pernicious vermin.

Cateſby deſcribes a bird found in *Carolina*, which ſeems to belong to this ſpecies; it is about a third larger in ſize, and the wings do not reach the extremity of the tail; in the other, they fall beyond it.

This bird being migratory, is ſuppoſed by *Buffon* to paſs from the old to the new continent. He pretends, that in *New Spain* there is a ſpecies of owl found, either the ſame, or ſo ſimilar as to conſtitute only a variety. Of this, however, there is no certainty; for the natural hiſtory of this bird is far from being well aſcertained. It is but ſeldom ſeen, and much ſeldomer taken in this country; its manners and migrations may well be placed among the *deſiderata* of ornithology.

* Le petit duc, Briſſon.

† *Vide* Dale's App. to the Hiſt. of Harwich, p. 397.

The Brown Owl *.

This ſpecies inhabits the woods by day, and during the night it is very clamorous. Above, it is of an aſh-colour, variegated with white and black ſpots; below, it has blackiſh bars acroſs and longitudinally. The *remiges* and *rectrices* are ſtreaked with tranſverſe bars of deep brown. Its wings extend beyond the extremity of the tail; and its breadth, when flying, is three feet three inches.

This ſpecies devours ſmall birds, which it ſwallows entire. It returns in the morning, after the chace is over, and conceals itſelf in the thickeſt coppices, or, if the weather be ſevere, in the hollow of a tree.

The Tawny Owl †.

The colour of this kind is ſufficient to diſtinguiſh it from every other. The back, head, and coverts of the wings are of a fine tawny red, elegantly ſpotted, and powdered with black or duſky ſpots of various ſizes. The breaſt and belly are yellowiſh, mixed with white, and marked with narrow black ſtreaks pointing downwards. It is deſcribed by *Linnæus* in his Fauna ‡, as an inhabitant of *Sweden*; it is alſo found in *America* and the *Weſt Indies*, with ſuch ſmall varieties as the climate is found to produce.

The

* La hulotte, Briſſon.

† Le chat huant, Briſſon.

‡ Fauna Succica, No. 55.

The naturaliſts who wrote in the laſt century, delivered their ſyſtems in the *Latin* language; they were frequently left to very vague conjectures in applying the names uſed by the claſſical writers to particular ſpecies. The ancients, in fact, knew nothing of natural hiſtory as a ſcience. Their names muſt therefore have been general and unappropriated. The word *ſtrix*, when applied to the tawny owl, affords an inſtance of a miſnomer ariſing from this licence of conjecture. It is evident from the following paſſage of *Ovid*, that that term ſhould have been applied to the barn owl:

———Strigum,
Grande caput, ſtantes occuli, roſtra apta rapinæ,
Canities pennis, unguibus hamus ineſt.
Eſt illis ſtrigibus nomen; ſed nominis hujus
Cauſa, quod horrenda ſtridere nocte ſolent.

*The White Owl**.*

This is the common barn owl; it is almoſt a domeſtic bird, inhabiting barns, hay-lofts, churches, and even villages. It utters continually a diſagreeable kind of hiſſing, or harſh and mournful cries, which the good women in the country believe to be ominous; for, when it perches upon a houſe, and utters its doleful notes, it is regarded as the meſſenger of death.

The elegant plumage of this bird, makes ſome compenſation for its diſagreeable voice. A circle of ſoft white feathers ſurrounds its eyes: the upper part of the body and coverts of the wings, are of a fine pale yellow; the

* Strix flammea, Lin. Le petit chat huant, Briſſon.

the lower part is wholly white. When taken old, it refuſes all food, and dies in ten or twelve days of hunger. They are found in *Europe* * and *America* †.

The white owl, poſſeſſing that indolence which ſeems characteriſtic of this tribe, is deſtitute of the ingenuity by which others of the race avail themſelves of the labour of more induſtrious birds to furniſh a neſt for their young. It careleſsly depoſits its eggs in the holes of walls, and of trees, without any preparation of withered graſs, roots, or leaves for their reception. Its period of ovation commences in the month of March, when it lays five or ſix eggs of an oblong ſhape, and a whitiſh colour. The young, after their firſt appearance, are wholly white, and are fed chiefly with inſects, and morcels of the fleſh of mice. When about the age of three weeks, they are reckoned by the *French* good eating. They are then fat and plump, but the nature of their food does not ſeem calculated to improve their reliſh; for they frequently drink the oil of lamps.

The Great Brown Owl ‡.

This ſpecies, ſometimes called the rock owl, is very common, though rarely ſeen in the vicinity of our habitations. It is leſs than the tawny owl, being only eleven or twelve inches from the bill to the claws: Its legs are covered with feathers, and the bill is wholly of a brown colour. Its favourite reſidence is in rocks, quarries, and ruined edifices, in the moſt retired ſituations: Though fond

* Lin. Faun. Suecica, No. 49.

† Marcgrave's Nat. Hiſt. Braſil

‡ La grande cheveche, Buffon.

fond of ſolitude, it is almoſt never to be found in woods or in the hollow parts of trees. The peaſants are commonly friendly to this bird, on account of its ſoft and plaintive note, which it varies according to the weather, and thereby becomes a faithful predictor of rain. It is alſo ſerviceable to them in many parts, by deſtroying the field mice, the enemies of their labours.

Like the bird laſt deſcribed, the great brown owl prepares no neſt; but indiſcriminately, in any hole, lays three white eggs perfectly round, about the ſize of thoſe of a wood pigeon. It is ſpread over all *Europe*; and if we may credit *Feuillée*, over many parts of *America*.

The Little Owl.*

THIS is one of the ſmalleſt of the race of owls, meaſuring only from ſeven to eight inches in length, and nearly of the ſize of a thruſh. It is diſtinguiſhed from the ſmall horned owl, by having no prominent feathers at the ears like that bird; and by the regularity of its white ſpots upon the wings and body. It frequents, like other owls, old buildings and quarries; but differs from them conſiderably in the nature of its ſight; and is not, ſtrictly ſpeaking, a nocturnal bird, for it is far more capable of enduring the rays of light, than the reſt of this gloomy and lugubrious tribe. It frequently exerciſes itſelf in the unproductive chace of the ſwallow; but is more ſucceſsful among the mice, which it tears in pieces, becauſe unable to ſwallow them entire. It uſes alſo a precaution peculiar to itſelf, of clearing away the hairs

* La petite chouette, Buffon.

hairs from its morcels, which the other devour, and afterwards vomit in the form of round balls.

The foreign birds allied to the tribe of owls, are numerous, and of various ſizes: That called *cambura* by the natives of *Braſil*, has been deſcribed by *Marcgrave*, and ſeems to reſemble the ſmall horned owl, by having two tufts of feathers over the ears; its plumage is yellow, and its ſize nearly that of a thrush. Another foreigner of this tribe is found at *Hudſon*'s bay, and has been engraved and coloured by *Edwards*, under the title of the *little hawk owl*. The eyes and bill are orange; the plumage brown and white; the form of the wings and tail approximates to that of the hawk; but the ſize of the head demonſtrates the affinity of this ſpecies to the family of owls.

There is in the northern latitudes, a bird common both to the New and Old World, deſcribed by *Linnæus* * by the *Swediſh* name, *harfang*. In ſize, it is equal to the largeſt of the owl kinds, and like moſt other birds in high latitudes, its plumage is of a beautiful white. Its head is variegated with ſmall brown ſpots, and its back with ſome lines of the ſame colour, in *America*; but upon the mountains of *Lapland*, it is pure white.

The Owl of Coquimbo †.

AMIDST the great varieties of foreign birds of this genus, there is one mentioned by *P. Fouillée*, in a province of *Chili*, called *coquimbo*, which, he aſſerts, digs holes in the ground for bringing forth its young, and for its own habitation.

* Fauna Suecica, No. 54.

† La chouette de Coquimbo, Briſſon.

habitation. His evidence for this fact is far from being satisfactory; for it does not follow, that a bird which has been found in a hole under ground, either dug that subterraneous habitation, or constantly resided there *. The head, throat, breast, and back of this singular species, are beautifully interspersed with white spots upon feathers of a deep brown colour. The belly, and under coverts of the tail, are of a dirty white.

* Fouillée, Journal des Observ. Phys. p. 562.

Section VII.

Genus IV.—*Butcher Bird* *.

This genus, which is ſtiled by the *French*, *Pie Grieſche*, cloſes the liſt of rapacious birds; and connects them in the great chain of nature with the order of pies, which ſucceeds. They are allied to the former, by the ſtrength and crookedneſs of the bill, and by their predatory life; to the latter, by the form of their toes, the ſhape of their tail, and their capacity of feeding upon inſects, when there is a deficiency of fleſh. There are many different ſpecies of this bird in both the Old and New World; it is an inhabitant of every climate, the artic regions excepted. *Linnæus* and *Briſſon* have enumerated, each, twenty-ſix ſpecies, and *Buffon* fourteen †.

Theſe birds are eaſily diſtinguiſhed, even at a diſtance, by their aſſociating together in families, after the young are capable of flight. In this reſpect, they differ remarkably from the predatory birds already deſcribed, who generally baniſh from the neſt, their young, while they are yet incapable of providing for themſelves. The female butcher bird provides for her young with the moſt affectionate care: She at firſt feeds them with inſects, and afterwards accuſtoms them to ſmall morcels of fleſh, which the male ſupplies with wonderful attention. When the offspring grows up, the parental regards do not ceaſe: The old aſſociate with the young during the whole Autumn and Winter,

* Lanius, Lin. Syſt. † Pennant's Genera of Birds, p. 5.

Plate VII

Winter, without aſſembling in larger flocks. They make the ſafety of the family a common intereſt; they live together in peace, and chace their prey in concert. It is only the powerful call of love that breaks the ties of this family attachment, and ſeparates the young from their parents to rear families of their own *.

Though of a ſmall ſize, and apparently ſlender in the form of their body and limbs, theſe birds have a juſt claim to be ranked among the rapacious tribes, and even among the moſt bold and ſanguinary of that order. Their bills are large, ſtrong, and hooked at the end; their appetite for fleſh is decidedly aſcertained, and they are perhaps the moſt fierce of all birds. One is aſtoniſhed to witneſs the intrepidity with which a ſmall butcher bird maintains the conflict againſt the pies, crows, hawks, and other animals far beyond it in ſize: Not only does he engage in ſelf defence, but often alſo attacks, and almoſt always with ſucceſs, eſpecially when the pair unite in driving theſe hoſtile tribes from their young †. He waits not till they approach; it ſuffices, that they paſs within his view; for as often as they do, he intercepts them, and falls upon them with loud cries; cruelly wounds, and beats them off with ſuch fury, that they ſeldom venture to return. In this unequal combat, it is ſeldom he ſuccumbs to ſuperior ſtrength, or allows himſelf to be carried off: His own death, and that of his adverſary, puts an end to the conteſt; for they are ſometimes, after their battles, ſeen to fall together upon the ſame field.

Nothing in nature diſplays the power and the rights of courage more ſtrikingly, than this ſmall animal. The moſt formidable birds of prey, even thoſe four times his

 ſize,

* Buffon, tome 16. p. 297. † Buffon,

ſize, reſpect him. The kite, the buzzard, and the raven, rather ſeem to dread, than ſeek an engagement with him. Although he is hardly larger than a lark, yet he, ſingly, wages war with the hawks and falcons, and hunts within their territories without fearing their reſentment. The butcher bird kills partridges, young hares, and ſmall birds, which it ſeizes by the throat and ſtrangles. It is ſaid, that when it has thus killed its prey, it fixes it upon the point of a thorn, and tears it, when thus ſpitted, to pieces. It is ſuppoſed, that as nature has not given this bird ſtrength ſufficient to tear its prey with its feet, as the hawks do, it makes uſe of this extraordinary expedient.

Some of the butcher birds migrate; thoſe which remain in the country all the year, inhabit the woods and high mountains. The larger kinds build upon tall trees, in the fork of a branch; the ſmaller, in the hedges and thickets. They lay from ſix to eight eggs, about the ſize of thoſe of the thruſh. The neſt, upon the outſide, is compoſed of white moſs, interwoven with blades of graſs; the inſide is thickly lined with wool *.

The Great Aſh-coloured Butcher Bird †.

THIS bird weighs three ounces; its length is ten inches; and breadth fourteen. Its bill is black, one inch long, and hooked at the end; the upper mandible is furniſhed with a ſharp proceſs. The muſcles which move the bill, are very thick and ſtrong, which makes the head appear large. This apparatus is quite neceſſary in a bird, whoſe method

* Buffon, a l'article pie griefche.

† Lanius excubitor, Lin. La pie griefche griſe, Briſſon.

method of killing its prey is ſo ſingular, and whoſe manner of devouring it is not leſs extraordinary *. When confined in a cage, it ſticks its food againſt the wires, before it devours it, as it does on a thorn in the wild ſtate.

The crown of the head and back of this ſpecies are aſh-coloured: The quill feathers are black, marked with a bar of white in the middle. The tail conſiſts of twelve feathers of unequal length; the two longeſt in the middle are black; thoſe next, tipped with white, which gradually increaſes to the outermoſt, which is wholly of that colour. The throat, breaſt, and belly, are of a dirty white.

This ſpecies is very common in *France*, where it remains the whole year, and during Summer inhabits the woods and mountains, which, however, it exchanges in the Winter ſeaſon for the plains, and thoſe parts more frequented by man †. It builds, upon the talleſt trees of the foreſt, its neſt; an edifice conſtructed of white moſs, interwoven with long piles of graſs, and lined within with a thick coat of wool. The female, who is of the ſame ſize with the male, and only diſtinguiſhable by the brighter tint of her colours, lays from ſix to eight eggs, about the ſize of thoſe of the thruſh. At firſt ſhe feeds her young with inſects; but as ſoon as their tender age is paſt, ſhe accuſtoms them to eat morcels of fleſh that are regularly provided by the male with parental care. Far from expelling her young before they are able to provide their own ſuſtenance, the female of this ſpecies aſſiduouſly guards hers, even after they have arrived at their adult ſtate. The whole family aſſociates together during Autumn

* Pennant's Brit. Zool. vol. I. p. 161.

† *Vide* Buffon, tome 16. p. 296

Autumn and Winter; every individual ſeems intereſted in the common welfare. Love alone, and the deſire of raiſing each a family of its own, is of ſufficient force to break this ſocial tie; and when the little tribe diſperſes, it is for the purpoſe of obeying another impulſe of nature, and of forming new tribes.

Varieties of this ſpecies are found in different parts of the world; in *Italy*, there are ſome with a red ſpot upon the breaſt, while thoſe of the *Alps* are totally white. In *Germany* and *Switzerland*, there are others of a larger ſize; in *America* and *Africa*, there are varieties whoſe deviation from the *European* kind is but extremely ſlight. The butcher bird of the *Cape* of *Good Hope*, is the ſame with that called the *dial bird* by the *Engliſh* at *Bengal* *, and can only be diſtinguiſhed from ours by the browniſh black of the upper part of the body.

The Red backed Butcher Bird †.

This ſpecies is diſtinguiſhed from the former by the grey feathers of the head, which are ſometimes very bright. The upper part of the back, and coverts of the wings, are of a bright ferrugineous colour; the breaſt, belly, and ſides, are of a beautiful bloſſom. Nearly reſembling this ſpecies is the *wood chat* deſcribed by *Pennant* and *Briſſon*: It is of the ſame ſize, but the colours are a little different. The head and hind part of the neck in the latter, are of a bright red or bay colour. Both are equally fierce and miſchievous, as the aſh-coloured deſcribed above. ‡ *Buffon* aſſerts that both theſe ſpecies are

* Albin. tom. iii. p. 8.

† L'ecorcheur, Briſſon. Lanius colurio, Linnæus.

‡ Buffon, a l'article ecorcheur.

are birds of paſſage: And what confirms his aſſertion, is a red backed butcher bird ſent him by M. *Adamſon* from *Senegal*.

They both neſtle in *Europe*; and their reſidence and manner of building their neſts differ from thoſe of the former ſpecies. They build in thick leafy buſhes, and not in the foreſts; at the time when the aſh-coloured butcher bird leaves the mountains, they take their departure for the warmer climes of *Africa*.

The Small Butcher Bird *.

THIS ſmall ſpecies is found in the marſhes near *London*; it is of the ſame ſhape as the long tailed titmouſe. The bill is ſhort, ſtrong, and very convex; its colour yellow. On each ſide of the bill, beneath the eye, is a long triangular tuft of black feathers. The head is of a beautiful grey; the chin and throat are white. It has all the characters of the butcher bird, and is therefore ranked among theſe by Mr. *Pennant* † and Mr. *Edwards*. Of the butcher bird, there are a great variety of ſpecies in different quarters of the world; but a deſcription of their colours and ſhape, without detailing their hiſtory, muſt prove both tedious and uninſtructing. We therefore proceed to the next order in the *Linnean* ſyſtem, that of pies.

* La meſange barbrie, Briſſon. Parus biarmicus, Lin.

† Brit. Zool. vol. I. p. 165.

CHAPTER III.

SECTION I.

ORDER II.—*Pies.*

THIS order connects the rapacious birds with the gallinacious or poultry tribes. It comprehends all the various genera, from the raven down to the humming bird; birds so different in their form and habits, that hardly any characters, however general, will apply to them all. They live upon fruits, grain, insects, and flesh. As an article of food, they are generally reckoned impure: Their feathers are of little use for any of the purposes of human life: Though they are fond of the vicinity of man, they are the least profitable of his servants; for they live upon the fruits of his industry, while their death makes no compensation for the mischiefs they have done. They are noisy, restless, and loquacious; some of them possess the faculty of imitating the human voice; and the instructing of them in the art of speaking, constitutes frequently the amusement of the idle.

Though useless or hurtful to man, birds of this order are, by their remarkable ingenuity, and active habits, well fitted for society. "Could we suppose a kind of "morality among the feathered race, we should find that "this class is by far the most industrious, the most faithful, the most constant, and the most connubial *. The "rapacious kinds drive out their young before they are "fit to struggle with adversity; but the pie kind cherish "their

* Goldsmith's Nat. Hist. vol. V. p. 221.

" their offspring to the laſt. The poultry claſs are faith-
" leſs and promiſcuous in their courtſhip; but theſe live
" in pairs, and their attachments are wholly confined to
" each other. The ſparrow kind frequently overleap
" the bounds of nature, and make illicit varietics; but
" theſe never. They live in harmony with each other:
" Every ſpecies is true to its kind, and tranſmits an un-
" polluted race to poſterity."

Birds of this order generally live in ſociety, for which their habits are ſo wonderfully adapted. Both male and female unite their labours in building their neſts; and in general, both are employed alternately in the duty of incubation. When the young are produced, they are abundantly ſupplied, by the joint labours of both parents. They are peculiarly diſtinguiſhed for eſtabliſhing a kind of government for the general ſafety of the ſociety. One bird watches for the whole flock, whilc it is feeding; and among the crows, there has been obſerved a ſort of diſtributive juſticc, by which every individual is puniſhed for his offences againſt the laws of the ſociety.

As they in general live by pilfering from the propcrty of man, the whole tribe is marked by a look of archneſs and cunning: They are able to elude more ſucceſsfully than other birds, all the efforts of man to deſtroy thcm; efforts, which, from their ſo frequently incurring his reſentment, he is continually obliged to practiſe. In the jack daw, the habit of thieving ſecms to be natural; for that bird, even in its domeſtic ſtate, whcn placed above the reach of neceſſity, carries off to its neſt every toy or glittering ſubſtance which it can find. A whole family has been alarmed at the loſs of a ring; every ſervant has been accuſed; and all in the houſe, conſcious of their own innoccncc, have been ſuſpecting each other, when, to their ſurpriſe, thc abſtracted goods have been

found in the neſt of a tame magpie or jackdaw, which, though alone guilty, had alone eſcaped ſuſpicion *.

As this order of birds is extremely numerous, the manners of the different kinds are various, and can only be deſcribed when we give the particular hiſtory of each tribe. Of the twenty-four genera which the order of pies contains, the parrot kind is the moſt numerous, and moſt remarkable; it has therefore obtained the firſt rank in this great diviſion of the feathered race.

* Goldſmith's Nat. Hiſt.

SECTION II.

GENUS V.—*Parrots.*

OF all foreign birds, this genus is the beſt known in *Europe*: From its docility, and the beauty of its plumage, it has been imported in greater numbers than the other birds of diſtant regions. In thoſe countries where it is indigenous, it is the moſt numerous of all the feathered tribes. The parrot is an intratropical bird, and is found from twenty-four to twenty-five degrees on either ſide of the equator. Although it lives in the temperate climes of *Europe*, yet it does not frequently breed there; and its ſpirits and longevity are diminiſhed in a temperature ſo little ſuited to the warmth of its conſtitution. Parrots are ſo various in ſize, and in the ſhades and diſtributions of their colours, that it is utterly impoſſible for language to deſcribe nature in all her gradations and varieties of them; and the taſk, though it could be accompliſhed, would neither prove inſtructive nor entertaining. Whoever attempts it, muſt lay aſide the pen, and take up the pencil. *Linnæus* has enumerated forty-ſeven different ſpecies, and *Briſſon* has purſued the dry detail, the length of deſcribing ninety-five kinds. It is probable that many varieties have eſcaped both theſe naturaliſts; while, from the circumſtances of age or diſeaſe, they may have deſcribed ſome kinds as different, which are the ſame.

It is remarkable, that of an hundred ſpecies of parrots that are known and deſcribed, there is not one common to the New and the Old World. Something like this is obſervable alſo in the caſe of quadrupeds: None of thoſe

belonging to the tropical regions in the one continent, are to be found in the ſame latitudes of the other *. No animal that is incapable of bearing the rigours of cold, is found to paſs from the Old to the New World; becauſe it is only in the regions of the north that theſe are found to approximate. Notwithſtanding its attribute of flight, the parrot is incapable of traverſing that vaſt ſpace between *Africa* and the *Eaſt Indies*; and all the different tribes of this large claſs, remain confined to their primitive ſtations on each hemiſphere. So ſhort and heavy are their flights, that they can hardly eroſs an arm of the ſea ſeven or eight leagues broad; hence, almoſt every iſland in the *Weſt Indies* is diſtinguiſhed by a race of parrots peculiar to itſelf †.

Man has always moſt admired thoſe animals that ſeemed to participate moſt largely of his own nature. The monkey, by its reſemblanee to his external form, and the parrot by imitating his voice, have exeited his wonder, and been deemed a peculiar and privileged race, deſtined to fill up the intermediate ſpace between him and the brute creation. Savages, who are in general ſo inſenſible to the grand ſpectacle of nature, have viewed theſe animals with aſtoniſhment and delight. They ſtop their canoes for hours together, to behold the geſtieulations of the monkey; and they take ſuch pleaſure in taming and edueating parrots, that they are ſaid to poſſeſs the ſecret of enriching and varying the hue of their plumage; an art to which the more eivilized nations of *Europe* are ſtill ſtrangers ‡.

The

* Buffon, a l'article perroquet. † Buffon, tome 21, p. 84.

‡ Buffon ſays, that this is done by putting drops of frogs blood into the holes from whence they have pulled the feathers of the young parrot.

The *Greeks* at firſt knew only one ſpecies of parrot, which was imported from the eaſt by one of the Captains of *Alexander*'s fleet. *Ariſtotle*, the father of naturaliſts, only ſpeaks of it as a rare bird, of which he had heard by report *. The beauty of parrots, and their faculty of ſpeech, ſoon made them objects of high requeſt among the luxurious *Romans*, whom the virtuous *Cato* juſtly reproaches for this puerile attachment †. In his time, they kept them in cages of ſilver and of ivory, and bought them at a price as high as that of a ſlave. Till the time of *Nero*, however, they knew no other ſpecies but thoſe from *India*, when thoſe who miniſtered to the pleaſures of that extravagant and luxurious emperor, found them in an iſland far up the river *Nile* ‡, called *Gaganda*.

The *Portugueſe* who firſt doubled the *Cape* of *Good Hope*, found the whole coaſts of *Africa*, and the iſlands of the *Indian* ocean, peopled with various tribes of parrots totally unknown in *Europe*, and in ſuch vaſt numbers, that it was with difficulty they could be prevented from devouring the rice and maize. Theſe, however, were far inferior to the numbers and variety that preſented themſelves to the firſt adventurers in the New World: Some of the iſlands there, were called the *Parrot iſles*, from the vaſt quantity of theſe birds which flocked upon them. They conſtituted the firſt article of commerce, between the inhabitants of the Old and New Continents §. In theſe regions every foreſt ſwarms with them; and the rook is not better known in *Europe*, than the parrot in the *Eaſt* and *Weſt Indies*.

So

* Indica avis cui nomen pſittace, quam loqui aiunt, lib. viii. chap. 12.

† *Vide* Columella, Dict. antiq. lib. iii. ‡ Plinii, lib. x. cap. 42.

§ Hiſt. Gen. des Voy. tome 13.

So great is their variety, that nothing ſeems more remarkable, than that only one ſpecies of them was known to the ancients, at a period when they boaſted of being maſters of the whole world. Of an hundred ſpecies now known, ſcarcely one naturally breeds in the countries that acknowledged the *Roman* power; a ſtriking proof how ill founded the pretenſions of that people were to univerſal dominion. The green paroquet with a red neck, is the firſt of this genus that was brought into *Europe*, and is now only known by the deſcriptions given of it by the ancients *.

The great docility of this tribe, and the eaſe with which they are taught to imitate the human voice, may be an apology for thoſe who ſpend ſo much of their time teaching their parrots to ſpeak. The education of a parrot, has often been compared to that of a child †. *Buffon* juſtly remarks, that the education of a child, may often, with equal reaſon, be compared to that of a parrot. It appears from *Pliny*, that the tuition of theſe birds in *Rome*, was a matter of ſerious concern: The preceptor, kept the birch continually in his hand, and was often obliged to make ſmart applications of it, before he could ſecure the ſcholar's attention ‡. Wonderful are the attainments ſaid to be made by the parrots, who have thus received a regular education; and ſuch as many of our orators might be proud to imitate. Their proficiency is, in general, in proportion to the idleneſs of their maſters. Thoſe in *France*, are eloquent; but far inferior, in copiouſneſs and fluency, to the *Braſilian* parrots, whoſe inſtruction is often the chief buſineſs of a lady's life. An old author § gravely mentions one that was kept

* Belon, Nat. des Oiſeaux, p. 296. † Tome 21, p. 104.
‡ Lib. x. cap 42. § Rhedigius antiq. lect. lib. iii. cap. 32.

kept by a Cardinal, which moſt devoutly repeated the Apoſtle's creed. *Buffon* ſpeaks of another, who acted as chaplain to the ſailors on board of a veſſel, regularly reciting prayers every day *.

To theſe inſtances of ſagacity in this wonderful bird, we ſhall add another, which, though not altogether of ſo pious a nature, is perhaps equally well atteſted. A religious old lady had kept a parrot for many years, which by daily hearing her ghoſtly exerciſes, had learnt to repeat a conſiderable part of her prayers. The concluſion of them in particular, it ſhocked her to hear conned over with ſo little reverence by the chattering bird. *This do for Jeſus's ſake*, became its conſtant cry for the greater part of the day. It was ſuggeſted to the lady, that by ſending the bird a few days to a neighbour's who kept a parrot, the bird might forget this profane habit. The meaſure was accordingly adopted; and, at the end of the week, *Poll* was again ſent for by its miſtreſs. But it returned only to demonſtrate the unconquerable power of habit: For the ſervant who had the charge of it, in returning home happened to fall; and, in the rage which his hurt occaſioned, exclaimed, "G–d d–mn my miſ-"treſs;" the parrot inſtantly rejoined its ill-timed petition, *this do for J—s's ſake. Amen.*

The genus of parrots, which comprehends ſuch infinite varieties, that the utmoſt accuracy of deſcription is in vain employed to diſtinguiſh them, may eaſily be diſcriminated from every other tribe by the formation of the bill. The upper mandible, as well as the lower, in the whole race is moveable. It is not connected, and in one piece with the ſkull, as in other birds, but is joined to the head by a ſtrong membrane on each ſide, that lifts and depreſſes it

* Tome 21. p. 104, note, 2.

it at pleaſure. By this contrivance, the bird can open its bill wider than it could otherwiſe do, and thus receive large nuts and fruits, which it can break with great facility.

The toes of parrots diſplay alſo a peculiar conformation: When walking, two are placed before and one behind; but when employed to carry food to the bill, one of the back toes is occaſionally brought forward. Both the beak and claws of the parrot are uſed in climbing, an exerciſe in which the animal appears ſingularly awkward: The tongue ſomewhat reſembles that of a man; and it is from this circumſtance, that ſome allege it is ſo well qualified to imitate the human ſpeech. The formation of the throat, however, and the cavity of the beak, all contribute to its articulation, and to confer on it this diſtinguiſhing privilege.

Parrots in their wild ſtate, feed almoſt on every kind of fruit and grain. Their fleſh, it is ſaid, always contracts the peculiar taſte and flavour of the food they eat. At the ſeaſon when the guava is ripe, they are fat and tender; and ſome of the ſmall tribes of the paroquet, are then ſought after by the ſavages as delicate food. If they feed upon the ſeed of the acajou, their fleſh acquires the flavour of garlic; when fed upon the ſeed of the ſpicy trees, their fleſh taſtes of cloves and cinnamon. The ſeed of the cotton tree intoxicates them, as well as wine and the ſmoke of tobacco, which in taming, are often preſcribed to them, to ſoften their fierceneſs and render them more talkative. Their appetite for fleſh is unnatural, and when gratified, never fails to bring on diſeaſes *. Of all food, they are fondeſt of the carthamus or baſtard ſaffron; which, though of a ſtrongly purgative

* Buffon, tome 21, page 114.

purgative quality to man, agrees perfectly with their conſtitutions, and will fatten the *Guinea* parrot very quickly *.

Birds of this tribe are ſubject to diſorders unknown to the reſt of the feathered tribes †; many of them die of the epilepſy and the gout. They are, however, remarkable for longevity; and there are ſome well atteſted inſtances of their having lived from fifty to ſixty years ‡. From twenty to thirty years may be conſidered as the common period which theſe birds live, when well kept: After that ſpace, the bill becomes generally ſo much hooked, that they are deprived of the power of taking food. They commonly breed in the hollow parts of old trees which have begun to rot: Sometimes availing themſelves of the labours of the woodpecker, they ſeize upon the hole which it has induſtriouſly ſcooped out. The larger kinds lay only two eggs, but they bring forth twice in the year. The ſmaller kinds, which from their weakneſs are more expoſed to devaſtation, are probably more prolific; for nature conſtantly repleniſhes thoſe ſpecies which are moſt eaſily deſtroyed, by conferring on them a ſuperior degree of fecundity.

As it is only when the parrots are taken young that they can be ſucceſsfully tamed, the ſavages commonly take them while in the neſt. They ſometimes, however, catch them when full grown, for food, and for their feathers, which they convert into valuable articles of dreſs. For this purpoſe they have various contrivances. They ſometimes mark the trees upon which they perch, and during night bring ſulfurious ſubſtances, which they burn around them: By the fumes of theſe, the creatures

* Buffon, tome 21, p. 114.

† Olina Uccelleria, p. 23.

‡ *Vide* Uccelleria ubi ſupra.

are ſuffocated, and fall to the ground *. In ſome places they ſtun them with arrows wrapped at the point with cotton; in others, they cut down the tree in which the neſt is built. In *New Spain*, where the feathers conſtitute an article of regular commerce among the natives, they take poſſeſſion of a number of trees where the parrots breed, which they tranſmit as an inheritance from father to ſon; and theſe trees form often the principal parts of their immoveable ſubject †.

Section III.

In order to form ſome kind of arrangement of the birds of this numerous tribe, naturaliſts have ſeparated them into two great diviſions; thoſe of the Old, and thoſe of the New Continent. The former have been ſubdivided into the *cockatoos*, the *parrots*, the *lories*, and the *paroquets*; and the latter into the *aras* or *maccaws*, the *amazons*, the *criks*, the *popinjays*, and the *paroquets*. Theſe claſſes differ chiefly in point of ſize, growing ſmaller in the order they are mentioned. Each claſs contains in it various ſpecies, or rather varieties, but we ſhall not puzzle the reader, by attempting to diſcriminate them all; ſatisfied with ſelecting for his notice, a few of the moſt remarkable of each claſs.

* Labat nouveau Voyage aux iles de l'Amerique, tome II, p. 52.

† Fernandes Hiſt. Nov. Hiſp. p. 38.

Plate VIII

COCKATOO
COCKATOO
OF BOTANY BAY
LITTLE GREEN PARROT
BRASILIAN
GREEN PARROT

The Cockatoo with a Yellow Creſt *.

THE bill and feet of this bird are black, while the plumage is white, with a ſhade of yellow under the wings and tail. Its creſt is of a beautiful citron, and conſiſts of a tuft of long ſoft feathers, which it can raiſe or depreſs at pleaſure: It is that bird whoſe beauty and elegance *Aldrovandus* admires ſo much: Its manners are gentle, and its temper docile; and it is more diſtinguiſhed by affection, when tame, than any other of the tribe. The cockatoos are the largeſt parrots of the Old Continent. They are found in all the tropical regions of *India*, and in the iſlands of the *Indian* ocean; where they are in ſome parts almoſt domeſtic, and build on the roofs of houſes †. The name *cockatoo* is given them from its reſemblance to their cry. They abound in *Bunda*, *Ceram*, the *Philippines*, and the iſlands of *Sunda*.

The Great Black Cockatoo ‡.

OF the cockatoos, the largeſt kind of parrots known in the Old World, there are five ſpecies, which are all diſtinguiſhed by a creſt of feathers above the head, and, by the *French* naturaliſts are all named according to the colour of their creſts. The creſt of the firſt is white; that of the ſecond, yellow, as deſcribed above; that of the third, red; that of the fourth, pale brown; and that of the fifth, here deſcribed,

* Le Cakatoés a huppe jaune, Briſſon.

† Voyage autour du Monde par Gemelli Carreri, Paris, tome v. p. 5.

‡ Le cakatoés noir, Buffon.

ſcribed, is deep brown approaching to black. The whole body of this bird is covered with a black plumage. Its bill and legs are nearly of the ſame colour; ſo that it may be termed the negro of the cockatoos. This ſombre colour is more remarkable among the tribes of congenerous birds, which are all approaching to white. Some naturaliſts have deſcribed it by the name of the *Indian* crow.

The Jaco, or *Guinea Parrot* *.

THIS parrot is moſt frequently imported into *Europe* at preſent; when properly taught, it is a great adept in language. The name *jaco*, which it frequently pronounces, is commonly given it for that reaſon. The whole body is of a beautiful grey pearly colour; deep upon the back, but lighter below, and whitening towards the belly. A red vermilion coloured tail terminates and exalts the plumage of this bird, which is always powdered with a whiteneſs which preſerves its freſh gloſs. The beak is black, and the feet grey: The iris of the eye is of a golden hue. The whole length of the bird is about thirteen inches. Parrots of this ſpecies are imported from *Guinea*, and eſpecially from the interior parts of that province of *Africa* †. They have been imported into *Jamaica*, but are not indigenous in any part of the New World ‡. They are not only endowed with the faculty of imitating the human voice, but apparently with a ſtrong deſire of ſpeaking, which they manifeſt by their eagerly liſtening to

* Le perroquet cendré, Briſſon. Pſittacus erithacus, Lin.

† Willoughby. ‡ Sir Hanſe Sloane's Nat. Hiſt. of Jam.

to catch ſounds, and their conſtant efforts to repeat them. They ſeem to preſcribe themſelves taſks, in order to retain the leſſons that are given them every day. *Cardan* abſurdly aſcribes this to emulation, and a deſire of glory *. M. *Buffon* enumerates eight different ſpecies in the tribe of parrots ſtrictly ſo called, none of which are to be found in the New Continent.

The Green and Red Parrot †.

MR. *EDWARDS* has deſcribed this parrot as coming from *China*, though it is not found indiſcriminately in every part of that great empire: It is only in the ſouthern diſtricts of *Quanton* and *Quangſi*, where parrots of any kind will reſide. This is one of the ſpecies which travellers have ſuppoſed to inhabit both the Old and the New World: This, however, is by no means the caſe with any bird of this numerous genus ‡. The greater part of the plumage is of a light, and ſhining green; the wings and ſcapular feathers blue; thoſe upon the ſides, and below the wings, are of a bright red.

The Scarlet Lory §.

THE name of *lory* has been given to one family of the parrots, from their frequently repeating that word. The tribe is but little diſtinguiſhed from the reſt, except in colour, which is red, more or leſs deeply ſhaded. They are

* Meditatur ob ſtudium gloriæ.
† Le perroquet vert, Buffon.
‡ Buffon, tome 17. p. 117.
§ Le lory de Moluques, Briſſon.

are the moſt ſpirited and gay of the whole race; qualities which they retain even in their captivity. The ſcarlet lory, and the ſpecies in general, come from the *Moluccas*. They are held in ſuch eſtimation in ſome parts of *India*, that they bring a conſiderable price. The *Dutch* were long unſucceſsful in tranſporting this elegant ſpecies into *Europe*: They generally died in the paſſage; and it was with difficulty they brought one alive to *Amſterdam*, in their ſecond voyage *. They are now frequently ſeen, and are marked by their attachment and tenderneſs for their maſters. In *Java*, the *Indians* rear vaſt numbers of them in a ſtate of domeſtication; a practice which ſeems very old in the eaſt.

The Yellow Collared Lory †.

This bird has its whole body covered with a deep red plumage of the colour of blood, the peculiar livery of this race. It is found chiefly in *New Guinea*, and in the *Molucca* iſles; nor indeed are the lories of any ſpecies ſpread over the whole continent of *India*. It is docile and familiar in its manners when tamed; but peculiarly delicate and difficult to rear. There is none of the whole tribe more eaſily taught to ſpeak: On this account, as well as the beauty of its plumage, it is held in high eſtimation; and a ſingle bird has been ſold at twenty guineas.

* Recueil des Voyages qui ont ſervi a l'etabliſſement de la Compagnie des Indes, tome 1. p. 529.

† Le lori a collier.

The Ring Paroquet *.

THE term paroquet, has been applied to the ſmalleſt of the parrot tribes, whether in the New or Old Continent. *Buffon*, who has endeavoured to enumerate the whole of this numerous and diverſified race, has termed the ſmall parrots of the Old World *perruches*, thoſe of *America perriches*: The former he has ſubdivided into two claſſes, thoſe with ſhort, and thoſe with long tails. In the firſt of theſe claſſes, he enumerates and deſcribes eighteen ſpecies, and in the ſecond ten. Theſe ſpecies, however, make but a ſmall number compared with thoſe of other ornithologiſts, and with thoſe he has himſelf enumerated belonging to *America*.

The ring paroquet is the only one of the motely and multifarious race to which I ſhall direct the reader's notice; and that becauſe it was the only parrot known, in the time of *Pliny*, to the ancient *Romans* †. The whole plumage of this ſpecies is a brilliant green, except a ſemicircular band of bright red around the upper part of the neck. The minute deſcription which *Aldrovandus* has given of the ancient parrot, leaves no room to doubt that it is the individual now under our review. It is found not only in the interior parts of the ſouth of *Aſia*, but likewiſe in the iſland of *Ceylon*. It appears, that from this iſland the ſailors of *Alexander*'s fleet imported this bird into *Greece*, where none of the ſpecies had ever yet been beheld.

* Le grande Perruche a collier d'un Rouge vif. Buffon.

† Plinii, lib. x. cap. 42.

Section IV.

The Red and Blue Maccaw *.

Of all the parrot race, this is the grandeſt and moſt magnificently equipped. The purple, the gold, and the azure of his plumage, alternately dazzle the eye of the beholder. The ſteady aſſurance of his countenance, the majeſtic ſtatelineſs of his gait, which borders on diſdain, ſeem to announce an inward conſciouſneſs of his ſuperior beauty †. Parrots of this ſpecies are confined to the continent and iſlands in the intratropical regions of the New World. None of them are to be found either in *Africa* or the *Eaſt Indies*.

When theſe parrots were firſt brought into *Europe*, their beautiful plumage, and their large and majeſtic form created univerſal admiration. *Aldrovandus* firſt ſaw one of them at *Mantua* in 1572; and he obſerves, that they were at that time in all the eſtimation which rarity could give them. Princes gave and received them as the moſt valuable preſents ‡.

Columbus in his ſecond voyage ſaw ſeveral of them as he touched at *Guadaloupe* §. They are to be met with even on the deſert iſlands; and they every where conſtitute the moſt beautiful ornament of theſe gloomy foreſts that darken the face of a country abandoned by men. While *Anſon* and his officers were contemplating the grand

* Pſittacus macao, Lin. L'ara de la Jamaique, Briſſon.

† Buffon, a l'article aras. ‡ Aldrovandi, tome 1. p. 665.

§ Herrera, lib. ii. cap. 10.

grand ſcenes diſplayed by nature in theſe ſolitary abodes, a flight of maccaws paſſed above them; and, as if to heighten the magnificence of the ſpectacle, they made ſeveral windings through the air, diſplaying the vivid luſtre of their plumage *. There are four different ſpecies of the maccaw deſcribed by naturaliſts; the red, the blue, the green, and the black. The characters which diſtinguiſh them from the other families of this tribe, are, firſt, their ſize, which is nearly double that of any other ſpecies; and next, the length of the tail, which ſeems beyond even the proportion of their bodies; and laſtly, the naked ſkin, of a dirty white, that covers their cheeks and the under parts of their head.

The red and blue maccaw, is nearly three feet in length; the whole body, except the wings, is of a vermilion colour; the larger feathers of the wing, are of a deep blue on the outſide; on the inner, of a brown leather colour: The leſſer feathers are of a blue and green admirably blended together. The greater coverts of the wings are of a golden yellow terminating in green. On the firſt diſcovery of *America*, theſe birds, as indeed almoſt every other kind, were ſo remarkably tame, that they could almoſt be taken with the hand. The noiſe of a fowling piece did not much ſcar them †. This was alſo the caſe in the woods of *New Zealand*, when viſited by Captain Cook, where the birds ſuffered the approach of man with a kind of confidence and familiarity. The ſavages, few in number, and badly armed, had ſcarcely made them feel the dominion of the ‡ human race.

* Anſon's Voyages, p. 288. † Buffon, tome 21, page 185.

‡ *Vide*, Forſter's relation in the ſecond voyage of Captain Cook, vol. I. page 206.

Birds of this ſpecies are found over all the ſouthern parts of *America*, and in the *Weſt Indies*. They prefer moiſt and watery grounds, becauſe in ſuch the palm trees are moſt frequent, of the fruit of which they are paſſionately fond. They commonly go in pairs, ſeldom in flocks: Sometimes, however, they aſſemble in the morning in much greater numbers, when they ſet up a loud and diſagreeable chattering, which is heard at a great diſtance. They cry while on wing, as well as when they perch. Though excellent flyers, they ſeldom remove far from the place of their abode, except in queſt of food; and, when that is obtained, they regularly return in the evening. There is a certain poiſonous kind of fruit which they ſometimes eat, that is ſaid to communicate its noxious qualities to their fleſh, and to render it dangerous to eat them. In *Guiana* and *Braſil*, where they are not obliged to take this ſpecies of food, they are eat by the natives with great ſafety.

All the aras, or large parrots, build their neſts in the hollow of rotten trees, which, in their native country, are eaſily to be found; for there, a much greater number of trees fall merely from age, than by the hands of the carpenter. When the tree is not fully rotten, and the hole not large enough for their reception, they widen it with their bills. The laſt proceſs in finiſhing their houſe, is the lining it with feathers.

The maccaws lay twice in the year, and generally two eggs at a time, about the ſize of a pigeon's. The birds, when young, have two worms, one in each noſtril, which die when they begin to aſſume their covering of feathers *. Theſe have been called maccaw worms in *America*, from this circumſtance. There are ſeveral other birds,

* Hiſt. des Antilles, tome 2, page 249.

Plate IX

BLACK-CAPPED
LORY
LONG-TAIL'D
SCARLET LORY
RED SHOLDERD
PARRAKEET
LONG-TAIL'D
GREEN PARRAKEET
BROWN THROATED PARRAKEET

birds, as well as quadrupeds, which, when young, have ſuch worms in their noſes, and in other parts of their body. Theſe ſometimes inſinuate themſelves into the fleſh of horſes; and, if M. *Buffon* * may be credited, even into the human body, where they produce an abſceſs very difficult to cure.

The male and female maccaw ſhare alternately in the labours of incubation, and rearing the young. They are equally aſſiduous in procuring them food; and, during the whole time of their nonage, the nuptial tie remains unbroken, both parents guarding their offspring with unremitting care.

The maccaws, when young, are eaſily tamed, and therefore, in many parts of *America*, they are only caught at that period; becauſe thoſe who catch them are ſenſible, that all their labour in their education, would, after that period, prove fruitleſs. *Du Tertre* † mentions, however, a ſingular method of taking the old ones alive practiſed in the *Weſt Indies*. The inhabitants watch the moment when they allight to eat the fruit that has fallen; they then ſurround them, and by clapping their hands and uttering loud ſhrieks, ſo alarm them, that, forgetting the uſe of their wings, they tumble upon their backs to defend themſelves by their claws and beak. In the moment of ſurpriſe, the ſavages preſent to them a ſtick, which they ſeize with their claws, when they immediately lay hold of them. Theſe facts, to ſay no more, appear ſuſpicious, becauſe it is certain theſe birds fly at the ſight of a man; and if ſo, they will not certainly lie down to liſten to his cries.

Another author affirms ‡, that the *Indians* of the *Iſthmus* of *Panama*, tame the maccaws, as we tame the pies,

* Buffon, tome 17, p. 187. † Hiſtoire des Antilles, tome 2, p. 248.
‡ Wafer, tome 4, Du Voyage de Dampierre, p. 231.

by allowing them ſome liberty by day, certain that they will return at night. But however good domeſtics, they are not adepts in ſpeaking. The ſavages adorn themſelves with their feathers, by drawing them through the cartilage of the noſe. Of all game, they are moſt frequent. They make excellent ſoup, and are very frequently eat in *Cayenne*.

This ſpecies, perhaps, more than any other of the feathered race, is ſubject to the falling ſickneſs or epilepſy; a diſorder which is more violent and fatal in warm, than in temperate climes. The ſavages have found out an efficacious cure for this diſeaſe, by cutting off the extremity of one of the birds toes, and allowing the blood to flow. This method of cure is certain in almoſt every other bird or animal that is ſubject to this diſeaſe. When it attacks birds of this ſpecies in their wild ſtate, if no blood is emitted by the bill, death immediately enſues. If nature ſucceed in her effort to throw off a portion of their blood, they immediately recover.

To this diſeaſe, the parrots that are kept in a domeſticated ſtate, are more ſubject than the wild. The abſtraction of the female, the ſuperabundance of food, and the conſequent exceſs of blood in the ſyſtem, ſeem to be the cauſes of epilepſy among theſe birds.

The Common Parrot *.

This parrot is claſſed among thoſe which are called *amazons* in *America*; becauſe they came originally from *Amazonia*. The *criks* are nearly allied to the amazons; both are diſtinguiſhed by the redneſs of their wings; the wings of the former are red on the top, thoſe of the latter,

* Le perroquet Amazone de la Jamaique, Briſſon.

latter, nearer the body. The amazons are larger than the criks, and much more beautiful.

The body of this ſpecies is green, tending to a clay colour below. The feathers on the crown of the head are pale yellow; the cheeks and throat of a clay colour. The five middle feathers of the wing are red down to the middle. The rectrices or tail feathers, are red in the half next the body; in the other part, green, terminating in a clay colour. There are five ſpecies contained in the tribe of amazons; each of which comprehends many varieties, which each nomenclator claſſes or multiplies according to his pleaſure. *Buffon* enumerates ſeven ſpecies of the tribe of criks, with ſimilar varieties in each.

Birds of this ſpecies build in the hollows of rotten trees, that have been prepared by the woodpecker. When their reſidence in a tree is once fixed, they do not, like other birds, readily abandon it, when their neſt is diſcovered, or their eggs handled. In the ſeaſon of procreation, they build in great numbers, in the ſame diſtrict, from which they iſſue in troops to procure food.

When ſatisfied with food, they begin a kind of noiſy loquacity, which they continue without interruption, hopping from branch to branch, till the darkneſs of night, and the fatigue of continual motion, compel them to reſt *. When the common parrots are taken young, their education is moſt ſucceſsful: After they have arrived at their adult ſtate, they can hardly be tamed to ſuch a degree as to ſuffer themſelves to be handled. The method fallen upon to tame them, is by making them ſnuff the ſmoke of tobacco, which ſo intoxicates them, that they become gentle, languid, and inactive. So ſoon as their vicious habits begin to return, the doſe is repeated; and the

* Buffon, tome 17, page 205.

the ſame treatment completely checks their noiſy jargon.

The amazons and criks are, of all the *American* parrots, moſt eaſily taught to ſpeak. The females have been alleged to be incapable of acquiring that art, but without any truth; for they are even more docile and gentle than the males.

The Yellow Headed Parrot *.

The head and throat of this ſpecies are yellow; the upper part of the body a ſhining green, and the lower yellow. It is diſtinguiſhed from the amazons by the tip of the wing, which in the latter is red, being yellow. The firſt row of the coverts of the wing are red and yellow; the others are a fine green. The feathers of the tail and wings are variegated with green, black, yellow, red, and violet.

This ſpecies belongs to that claſs called *criks* by the *French* writers. M. *Bougot*, a capuchin, who might have merited the rank of profeſſor in an academy of parrots, has tranſmitted the following detail of the manners and habits of this bird to M. *Buffon*. "It ſhews itſelf," ſays he, "capable of attachment to its maſter; but its affec-
"tion is always conditional, and in proportion to the
"careſſes it receives; it is piqued by neglect, and vin-
"dictive if provoked. It falls into tranſports of anger,
"bites its enemy, then laughs aloud, as if applauding
"itſelf for the miſchief it has done. Againſt harſh
"treatment and chaſtiſement, it conſtantly revolts, being
"always hardened and rendered more obſtinate by ſe-
"verity.

* Le crik a tete, et a gorge jaune, Buffon.

" verity.—An inceſſant habit of gnawing and tearing,
" makes theſe birds deſtructive of every thing around
" them. Cloths, furniture, paper, and pens, they take
" a pleaſure in tearing and deſtroying; and you no ſooner
" remove them to a different place, to put them out of
" their way, than they are there, merely from a princi-
" ple of contradiction. Theſe bad qualities, however,
" are compenſated by others more agreeable: They eaſily
" retain what inſtructions are given them in ſpeaking.
" Before they begin to articulate, they mount upon the
" beam of their cage, hang their wings, and ſhake them-
" ſelves. Confinement makes them penſive and ſilent;
" they are moſt talkative when at liberty, and in Sum-
" mer they chatter more copiouſly than in Winter; it is
" then that their love of converſation ſeems to overcome
" their appetite for food.

" In theſe ſeaſons of gaiety, they are affectionate, obe-
" dient and attentive; they are fond to give and receive
" careſſes; but their good humour is often interrupted
" by ſudden guſts of anger and caprice. They ſeem to
" be affected by the changes of the weather; for by theſe
" they become ſilent and melancholy."

" This bird is fond of children; a circumſtance in
" which he differs from other birds of the ſame genus:
" He prefers, however, ſome to others; and the favourite
" child has the privilege of taking hold of him and
" carrying him at pleaſure. He careſſes them; but did
" a grown perſon then venture to touch him, he would
" bite him moſt ſeverely. When his young friends leave
" him, he ſhews evident ſymptoms of diſtreſs; follows
" them, and calls them back with a loud voice."

" The time of moulting is with this ſpecies a ſeaſon
" of dejection and diſtreſs, which continues with little
" abatement for three months. Their ordinary food is

" nuts,

" nuts, fruit, and bread dipt in wine: They prefer fleſh " to grain; but it makes them heavy and indolent, and " often cauſes them to throw their feathers. Their food " is depoſited for ſome time in a pouch or bag, from " which it is afterwards taken to undergo rumination *."

The Parrot of Paradiſe †.

NEXT to the families of amazons and criks, is a tribe of *popinjays*, of which the parrot of paradiſe is a ſpecies. There are eleven kinds of the popinjays, which are all diſtinguiſhed from thoſe tribes above deſcribed, by having no red on their wings. This particular kind is very beautiful. The whole body is yellow; and all the feathers bordered with a ſort of gilding. The larger feathers of the wing are white; the lateral feathers of the tail red about two thirds of their length, the reſt yellow.

The Golden Crowned Paroquet ‡.

THE claſs of *paroquets* is extremely numerous and diverſified. Of the ſpecies named *golden crowned* by Mr. *Edwards*, an individual, in his time, remained fourteen years in *England*, and laid five or ſix ſmall white eggs. Paroquets of this ſpecies aſſemble in very large flocks in *Cayenne*: When properly tamed, are good ſpeakers. Theſe beautiful birds have a large ſpot of orange colour on their forehead: The reſt of the head, the back, wings, and tail, are of a deep green. The throat, and lower part

* Buffon, tome 21, p. 223.

† Pſittacus Paradiſi, Lin.

‡ La Perruche du Breſil, Briſſon.

part of the belly, are of a yellowiſh ſhade of the ſame colour. On each wing, there is a large longitudinal ſtroke of fine blue.

Here we ſhall conclude our hiſtory of the genus of parrots, without preſuming to bewilder our readers by the diſcuſſion of all the minute varieties of that numerous liſt of paroquets deſcribed by the *French* ornithologiſts. Such ſtudies promiſe neither pleaſure nor amuſement, and the naturaliſt who dwells upon them, forgets the great object of his reſearches, and degrades his work to ſomething far below the dignity of ſcience.

Section V.

Genus VI.—*The Toucan.*

At the firſt view of the head and beak of the toucan, a perſon would take it for one of thoſe maſks with long noſes, conſtructed to frighten children. The bill is large beyond all proportion either of beauty or utility; and, were there only an individual bird of this genus, it would certainly be regarded as a monſter: Since, however, its deformities are uniformly tranſmitted to all the varities of this bird, we muſt admit them as the ſpecific characters of thoſe creatures to which they belong. One in vain ſearches for a final cauſe of theſe oddities of form, which ſeem the reſult of the ſports or caprices of nature; if it be not to demonſtrate, that, although regularity, beauty, and proportion, commonly prevail among her works, yet the extent of her power is not limited to our narrow ideas of ſymmetry and order *. In providing ſuch an enormous beak, for a bird of ſuch moderate ſize, we regret the apparent waſte of labour in nature; and our regret is increaſed on finding, that this diſproportionate inſtrument, inſtead of being of ſervice to the bird, cramps it in every operation. It is of no uſe in ſeizing, cutting, or dividing its food, which the animal is obliged to gobble up in entire lumps, without grinding or breaking. It is ſtill leſs a weapon of defence, or a counterpoiſe in flying: On the contrary, it gives the bird a tottering

* Buffon, tome 22. p. 110.

tering motion that threatens to bring it to the ground, at the time it wiſhes to riſe in the air.

Neither has nature been contented with admitting only one deformity into the ſtructure of this neglected part of her offspring: The uſeleſs and immenſe bill of the toucan, incloſes a tongue ſtill more uſeleſs and extraordinary. It is not fleſhy nor cartilaginous, like that of other birds, but exactly reſembles a feather ſhut up in a large caſe.

The feathers of the toucan are greatly admired by the *Braſilians*: They make them up into articles of dreſs, which they wear only on extraordinary occaſions. The feathers of the throat are of a bright and lively orange, and in requeſt in *Europe* for making muffs. Notwithſtanding the deformity of his bill and his tongue, the toucan wears a ſplendid dreſs: This circumſtance, with his other peculiarities, have procured him the honour of being placed among the conſtellations of the ſouth.

From the ſingular conformation of the tongue of theſe birds, one would imagine that they are mute: They make, however, a conſiderable noiſe; their long repetition of a hiſſing ſound, is often heard at a great diſtance. The ſavages attribute great healing virtues to this extraordinary tongue: They employ it as a medicine in almoſt every diſeaſe *. The noſtrils of this claſs of birds are ſo imperceptible, that ſome authors have aſſerted they have none: They are concealed among the feathers upon the baſe of the beak, in moſt kinds; and, in others, diſcernible upon the naked roſtrum †. The feet reſemble thoſe of the parrot tribe, having two toes before and two behind, but of a diſproportionate length. The legs of the tou-

 can

* Condamine Voyage à la riviere des Amazons.

† Willoughby and Barreſe.

can are bare of feathers, but covered with ſcales that feel ſoft to the touch. Theſe birds are ſpread over all the warm climes of *America*; and, being very ſenſible to cold, never quit them. They remove at different ſeaſons, after ripe fruit, but are rather wanderers than migratory birds. They delight in marſhy grounds, and feed principally upon the fruit of the palm tree. They ſwallow their food whole, their large beak being of no ſervice in breaking it.

Though the toucan perches on the tops of very tall trees, his flight is heavy, and executed ſeemingly with great effort. Although he is continually in motion, yet his large beak gives him a grave and ſerious aſpect *.

The whole of this genus build in the holes of trees, that have been ſcooped out by the woodpecker: They lay only two eggs, although the individuals of each ſpecies are very numerous. When taken young, they are eaſily tamed; and can be even brought to hatch their eggs within a houſe. When in their natural ſtate, no bird defends its young better: They ſit in their cavity, placing their large roſtrum at the entrance; and, ſhould the monkey or any other plunderer approach, he generally meets with ſuch a reception, as prevents him from returning. The hole at which theſe birds enter, is commonly ſo ſmall, that their large bill nearly fills it; by this means they are more effectually guarded againſt birds, ſerpents, and other tribes of invaders.

* Buffon, tome 22, p. 116.

The Yellow Breaſted Toucan *.

LINNÆUS has deſcribed eight ſpecies of the toucan, and *Briſſon* eleven. We ſhall here give a ſhort deſcription of that ſpecies moſt remarkable for the beauty of its feathers. The *Indian* of *Cayenne* does not think himſelf completely dreſſed, till he has the ſkin and feathers of the neck of this bird glued upon each cheek: Then he fancies himſelf irreſiſtible. The head, upper part of the body, the wings and tail of this ſpecies are black: The throat of a lively orange; below the throat there is a band of red more or leſs large. The bill is black, with a bluiſh ſtroke along its ſummit the whole length; which, in this ſpecies, is only about five inches. The tail is ſix inches long; and the head, neck, and body, nine. It is only the male that carries beautiful yellow feathers upon the breaſt; the female being white in that part. This ſpecies is ſaid to feed upon pepper, which it devours ſo greedily, and in ſuch quantities, that it voids it unconcocted. This, however, deters not the natives from uſing it again; they even prefer it to that pepper which is freſh gathered from the tree; and ſeem perſuaded that the ſtrength and heat of the pepper are qualified by its reſidence in the body of the bird, and that all its noxious powers are thus exhauſted †.

* Le toucan á gorge jaune, Buffon. † Goldſmith, vol. V. p. 244.

The Grigri *.

M. *Buffon* has ſubdivided this genus into the tribe of the *toucans*, ſtrictly ſo called, and that of the *aracaris*: The former are diſtinguiſhed by their ſuperior ſize; by the ſhape and conſiſtency of the bill, which, in them, is more lengthened, and of a much ſofter texture, than in the latter. The tails of the aracaris are much longer and more ſenſibly forked, than thoſe of the toucans. The ſame author has enumerated five ſpecies of the toucan, and four of the aracari, all indigenous in the warm climates of the New World. We have retained the name *grigri* given by the natives of *Cayenne* and *Braſil* to this bird; becauſe it is expreſſive of the ſhrill and abrupt note which it utters.

The manners of the aracari are ſimilar, almoſt in every reſpect, to thoſe of the toucan: The former bird, like the latter, inhabits moiſt grounds, and plantations of palm trees. The head, throat, and neck of the aracari are black; the back, wings, and tail, of a dark green, while the breaſt and belly are yellow. The bill is not of the ſame monſtrous enormity with that of the toucan, being only about four inches and an half in length.

* Le grigri, Buffon.

Section VI.

Genus VII.—*Motmot* *.

Of this genus, there are only two varieties. The firſt is of a bright green, above; below, of a more obſcure ſhade of the ſame colour: It is about the ſize of a pie, being about ſeventeen inches from the top of the bill to that of the tail. The bill is of a conic ſhape, bent a little downwards, and ſerrated upon the edges of both mandibles. The toes are three before, and one behind; the fore toes cloſely united almoſt the whole length. The other ſpecies is more variegated in its colours: Both are diſtinguiſhed from all other birds, by having the two middle feathers of the tail quite naked of their vanes, for about an inch, at a ſmall diſtance from their extremity.

Some have imagined that this nakedneſs of the feathers of the tail of this bird, was not the production of nature, but was owing to the caprice of the animal in tearing away the vanes from that part of the ſtalk which is ſeen bare. In the young of this genus, however, naturaliſts obſerved that the vanes of theſe feathers were quite entire, and that, as they advanced to their adult ſtate, they gradually grow ſhorter and ſhorter, till at laſt, in old age, they altogether diſappeared.

Theſe birds inhabit *South America*: They are very difficult to tame, becauſe they live upon inſects, which cannot eaſily be procured ſuitable to their taſte †. They are extremely ſhy and timid, when old; and, if then in captivity,

* Ramphaſtos Motmota, Lin. Le Momot, ou Houtou, Buffon.

† Buffon, tome 21. p. 433.

tivity, invariably refuſe all kinds of food. From their ſolitary habits, they never go in flocks, nor even in pairs; and are hardly ever ſeen but in the midſt of large foreſts, where they hop among the lower branches, or upon the ground. They are almoſt altogether incapable of flight, and therefore generally build their neſts upon the ground, in the deſerted holes of ſome of the ſmaller quadrupeds. The neſt conſiſts of a few withered blades of graſs, on which they depoſite their eggs to the number of two. Theſe birds are deſcribed by *Edwards*, under the name of *Braſilian ſaw-billed rollers*; and by *Marcgrave* in his Natural Hiſtory of *Braſil*, they are called *guira-guainumbi* *.

* Hiſt. Nat. Braſ. p. 193.

Genus VIII.—*The Horn-bill* *.

Buffon deſcribes no leſs than ten ſpecies of this extraordinary family, which are ſtill more diſtinguiſhed, than the toucans, by the enormity of their beaks. Nature, more advanced in the ancient continent, maintains a ſuperiority, in all her productions, over thoſe in the New World: There ſhe is great, even in her errors; and her powers appear while ſhe deviates from her ordinary rules †. Theſe birds are found in *Africa*, and the iſlands of the *Indian Ocean*; and they far exceed the toucan, in every monſtrous dimenſion.

Many of the more deformed and diſproportioned quadrupeds, as well as birds, periſh almoſt as ſoon as they enter upon life, from their jarring and inconvenient organization. The duration and life of theſe imperfect and debilitated beings, depend on their ſolitude, and can only be maintained amid the deſerts, far from man and the more powerful animals. The beak of the horn-bill, far from being in proportion to its ſize, or uſeful from its ſtructure, is a pernicious load to the bird who bears it. The whole of nature does not furniſh another example of a weapon of ſuch magnitude, attended with ſo little effect. The point of it, like that of a lever too far removed from the fulcrum, takes but a feeble hold: It is of a ſubſtance ſo ſoft, that its edges are continually broken down by the leaſt reſiſtance. The two mandibles of that ſpecies, properly called the *rhinoceros*, only touch at the point; all the intermediate ſpace remains open, as if they

* Calao, Briſſon. L'Oiſeau rhinoceros, Buffon.

† Buffon, tome 22. p. 136.

had not been formed for each other. Far from being fitted for conſtant uſe, the bill ſeems deſtroyed by its firſt application, and remains, for ever after, uſeleſs for the purpoſes for which it is deſtined. M. *Buffon* deſcribes one he had from *Pondicherry*, which lived in *Paris* the whole of the year 1777. It was larger than a common crow. Its beak was eight inches long, bent down at the top: Above it, there aroſe a falſe beak like an horn. This extended from the baſe two inches along the true beak; its height was upwards of two inches. The beak, and its horn above it, were four inches in depth. The falſe beak was black from the point till near its origin, where it was of a whitiſh yellow, like the true one. The eye of this bird was of a browniſh red, and full of fire and animation when the animal was in motion *. In general, the figure, gait, and manner of this bird, were compounds of thoſe of the jay, crow, and pie kinds. The feathers of the head, back, and wings, were black, with a faint reflection of violet and green. There are different ſpecies of this monſtrous race found in *Abyſſinia*, the *Philippine* iſles, the *Moluccas*, *Manilla*, *Malabar*, and *Senegal*.

The Horned Pie of Ethiopia †.

THIS bird was ſeen by *Bontius* in the iſland of *Java*; it is larger than the *European* raven; its form, he aſſerts, is ugly, and its ſmell abominable. Its plumage is quite black; and, above the upper mandible, there ariſes an excreſcence of an horny ſubſtance, which points forwards, and

* *Vide* Buffon, a l'article Calao, tome 22. p. 153.

† Le Calao rhinoceros, Buffon.

and towards the top bends back like an horn. It is of the enormous ſize of eight inches in length, by four in breadth at the baſe. It is of a yellow and red colour, and as if divided into two parts by a black line extending from the top to the baſe.

Theſe birds live upon fleſh and carion; they follow therefore commonly the track of thoſe who hunt boars and wild cows, that they may devour the inteſtines of theſe animals, when they are killed and cut to pieces by the hunters. This the hunters are obliged to do, otherwiſe they would not be able to carry along with them ſuch large game; and, were they to leave it behind, it would infallibly be carried off by theſe rapacious birds *.

When left to provide for themſelves, the horned pies only chace rats and mice; and they are ſometimes reared by the natives for that purpoſe. Before eating a mouſe, this bird flattens and ſoftens its whole body by ſqueezing it hard in its bill; it then ſwallows it whole, by toſſing it up into the air, and allowing it to fall down into its large throat. This is the only manner in which this bird is permitted to take food by the largeneſs of its bill, and the ſmallneſs of its tongue, which lies concealed at the bottom of the bill, and almoſt in the throat †. To ſuch a manner of life has nature condemned this animal, by giving it a bill ſtrong enough for prey, but too ſlender for battle; a bill too ponderous for uſe, and too much deformed with exuberance to be ornamental.

* Bontius, Hiſt. Nat. Ind. lib. v. cap. 11.

† Philoſophical Tranſactions, No. 285.

Genus IX.—*Beef-eater* *.

Of this bird, there is only one known ſpecies, of which an individual was ſent from *Senegal* by M. *Adamſon*. *Briſſon* is the firſt who deſcribed it †: The bill is ſtrong, thick, and nearly ſquare; the upper mandible a little protuberant; on the lower, a large angle. When it is flying, the wings extend about fifteen inches: The whole upper part of the body is ofa dark grey; the lower inclines to yellow.

This bird has obtained its name from its habit of tearing the ſkin off the backs of cattle, to get at the little worms or *larvæ* of inſects that are depoſited there. This ſtrange kind of food it prefers to every other.

* Bufaga, Lin. Le Pique Beuf, Briſſon.

† *Vide* Ornithologie de M. Briſſon, tome 2. p. 436.

Plate X

ANI

JACKDAW

CROW

RED LEGGED CROW

GENUS X.—*Ani* *.

THIS is the name which the inhabitants of *Braſil* have given to a bird deſcribed by *Cateſby* †, by the name of the *razor billed blackbird*; and by *Sloan*, the *great blackbird* ‡. This genus is confined to the intratropical regions of *America*. Two ſpecies only have been deſcribed by ornithologiſts; which may rather be regarded as varieties than diſtinct kinds: The one is larger than the other; but both are nearly of the ſame colour. Their generic characters are, two toes before, and two behind; a bill ſhort and thick, having the upper mandible bent in, the lower ſtraight. The upper mandible is greatly arched, and compreſſed at the ſides; ſo that it diſplays a ſharp cutting ridge along the top. The colour of their feathers is black, with a reflection of a deep ſhining green, which is only perceptible when near: At a diſtance, theſe birds appear wholly black.

The ani are ſo remarkably ſocial in their habits, that they are conſtantly ſeen in little flocks together: And, what is entirely peculiar, ſeveral females lay and hatch together in the ſame neſt; which they conſtruct of dry leaves, without any internal lining. Its ſize is from a foot to eighteen inches wide, according to the number of females it is deſtined to accommodate: There are often five and ſix in the ſame neſt; a ſtrong proof of their diſpoſition to court ſociety; for, in theſe burning regions, nature could not have endowed them with ſuch an inſtinct

* Le Bout de Petun, Briſſon.

† Cateſby Carol. app. iii.

‡ Nat. Hiſt of Jam. p. 298.

ſtinct for preſerving the warmth of their eggs *. Such a cloſe union of families muſt therefore ariſe from the impulſes of a ſtrong appetite for ſociety; and in fact, whether flying or ſitting, theſe friendly birds are continually cloſe by each other. They perch upon the ſame bough; their converſations and chatter, which are inceſſant the whole day, are literally *téte a téte*. Their flights are but ſhort; they are neither ſhy nor timid, and the noiſe of fire arms alarms them ſo little, that there is no difficulty in ſhooting ſeveral, one after another. They are, however, in little danger, for their fleſh is uneatable: It ſmells diſagreeably, even when they are alive; and probably partakes of the flavour of the ſerpents, lizzards, and other vile reptiles, which they devour.

The Larger Ani †.

This ſpecies is the larger of the two, and differs but little in colour or manners from the leſſer kind, excepting that it reſides on moiſter grounds, being generally found about the borders of ſome pond or marſh. It is about the ſize of a jay, and of a dark brown colour nearly approaching to black. It is one of the moſt common birds in the iſland of *St. Domingo*, where the negroes give it the name of the *tobacco ſtick* ‡ or *black parrot*. This bird is confined chiefly to *South America*: Its flights are neither long nor rapid; when on the wing, it ſpreads its tail, which then reſembles a leaf of tobacco. It has a ſhrill and diſagreeable note, which it conſtantly utters when

* *Vide* Buffon a l'article ani, tome 21. p. 420.

† Crotophagus major, Briſſon. ‡ Bout de tobac.

when alarmed by the appearance of danger, particularly when it has its young to defend.

The males and females join their labours in conſtructing the neſt. When it is finiſhed, ſeveral females lay in it, and hatch together. This good underſtanding is the more remarkable, as love, almoſt in every animal, breaks thoſe ties of affection which connect it with other individuals of the ſpecies. Their nuptial contract is entered into very early in the ſeaſon, when the males court the females with all the ardour of deſire; and, during the period theſe amorous purſuits continue, they are more briſk and lively, than at any other ſeaſon. Their neſts are built in the hedges and ſhrubberies. When different females poſſeſs the ſame apartment, the moſt forward in the work of procreation, does not wait till the reſt are ready: She begins to lay her eggs, while the reſt continue to enlarge and finiſh the neſt: As ſoon as the eggs are laid, they are carefully covered with leaves or graſs-

Section VII.

Genus XI.—*Crows.**.

This is a well known genus in *Europe*. Some of the ſpecies are ſo familiar to us in *Britain*, that a ſhort deſcription of them will ſuffice. *Linnæus* has nineteen different ſpecies of crows. *Briſſon*, with ſome propriety, ſubdivides this large tribe into five diſtinct families, viz. the *chough*, the *crow*, the *magpie*, the *jay*, and the *nut-breaker*. It muſt be owned, that theſe kinds are, each, ſo clearly diſtinguiſhed by their external form and manners, as to juſtify their ſeparation into different genera.

The Raven †.

This bird, in all ages, has had the infelicity of ſuſtaining a very bad character; either from the malignity of his habits, or from being confounded with other birds, and having their bad qualities charged againſt him. He is loaded with the imputation of a moſt groſs and indelicate voracity, which is allured by every putrid exhalation, and gratified by the fouleſt carrion. Thus, he has ever been regarded as the moſt cowardly, ignoble, and diſguſting of all the rapacious tribes. If he ever attacks a living animal, it is the moſt feeble, innocent, and defenceleſs, ſuch as the leveret and the lamb. What renders his ferocity more odious, is, that in him it is not the

* Corvus, Linnæus. Corbeau, Buffon.

† Corvus Corax, Lin. Le Corbeau, Briſſon.

the effect of neceſſity, but of choice; for, though he delights in carnage and blood, he can ſubſiſt upon grain, fruits, inſects, or dead fiſhes *.

If to theſe diſagreeable traits of the raven's character, we add his ignoble gait, his wild ſtaring look, his diſmal cry, his lugubrious dreſs, and the putrid effluvia always emitted from his body, we will not be ſurpriſed that he has always been regarded as an object of diſguſt, infamy, and horror. In the iſlands of *Faro* and of *Malta*, a price is ſet upon his head †. His fleſh was expreſsly forbidden among the *Jews*: Even the ſtarving ſavages eat it, when compelled by neceſſity, with extreme reluctance.

The raven has always been accounted a bird of bad omen, whoſe knowledge of futurity enabled him only to announce calamity. When, among the ancients, the obſervation of omens made a part of religion, the voice of this bird muſt have afforded ample room for their ſuperſtition. The deſire of prying into futurity, is a weakneſs that has always accompanied human nature. Every action of this bird was deemed momentuous; every circumſtance of its flight was obſerved; and no leſs than ſixty-four different inflexions of its voice were diſtinguiſhed by the prieſts, all more or leſs portentous of calamity ‡. Every one of its notes had a determined ſignification, which it was the buſineſs of knaves to interpret, and of the credulous to believe.

In *Rome*, where ſo great attention was paid to theſe birds, they were ſometimes taught to ſpeak. *Pliny* condeſcends to give a minute hiſtory of one, that had learn-

* *Vide*, Ariſtot. Hiſt. Animalium, lib. viii. cap. 3.

† Buffon, tome 18, p. 16.

‡ Peſſima eorum ſignificatio cùm glutiunt vocem, velut ſtrangulati, Pliny, lib. x. cap. 12.

ed to ſalute *Tiberius*, and all the imperial family by name *. They are, notwithſtanding their ferocity, eaſily tamed, even when old, and ſeem ſuſceptible of durable attachments. *Dampier* † mentions their being capable of being trained to hunting, like hawks. *Aldrovandus* ſpeaks of one at *Naples*, that was taught to chace partridges, pheaſants, and even other ravens. It is to one of this ſpecies that the famous contrivance is aſcribed of filling a pitcher with pebbles, in order to raiſe the water till it came within its reach. They commonly inhabit high rocks, where they build in a cliff, and ſometimes upon a tree. They never paſs the night in the foreſts, like the rooks and ſome other ſpecies of the tribe. The male and female of this diſguſting race, are guided, however, by a mutual and conſtant attachment; and live together for many years. They are remarkable for longevity ‡; and more fertile, than rapacious birds in general. The raven lays five or ſix eggs, of a pale green and blue, covered with a number of dark ſpots. The young, when they firſt make their appearance, are rather white, than of the colour of their parents. They are fed by the mother, who diſgorges their nouriſhment from her crop, where it undergoes a preparation that renders it ſuitable for their ſtomach §.

The male is not contented with providing ſuſtenance for his family; he alſo watches for its defence. No ſooner does he perceive a kite or any other rapacious bird approaching his neſt, than he riſes into the air, and, emboldened by the danger of his offspring, he darts upon the enemy, and ſtrikes him down with his beak. As often

* Plinii, lib. x. cap. 43. † Page 702.

‡ Buffon aſſerts that there are well atteſted inſtances of their having lived one hundred years.

§ Willoughby's Ornithology, p. 82.

often as the bird of prey makes an effort to get above him, he takes a new flight to preſerve his advantage: Thus they both aſcend till they diſappear, or till overcome by fatigue, they drop down together from the clouds *. There are ſeveral other crows, the *carrion crow*, the *rook*, and the *royſton crow*, which is a bird of paſſage. The crow, properly ſo called, though frequent here, is ſo rare in *Sweden*, that *Linnæus* mentions it only as a bird he once knew killed there.

The Corniſh Chough †.

This bird is covered with black plumage, with tints of blue, green, and purple, which ſparkle with peculiar luſtre upon this dark ground. He has an elegant ſhape; and, though eaſily tamed, is of a reſtleſs and turbulent diſpoſition. When domeſticated, he can partake of almoſt every diſh that appears at table: In this ſtate too he has become infamous for theft; money, glaſs, clear pieces of metal of all kinds, attract his notice, and become the objects of his avarice, and the means of his diſgrace. So far does he carry his fondneſs for every thing luminous and ſhining, that he has been known to carry pieces of burning wood from the chimney, and thus to become an incendiary as well as a thief.

In the choice of his reſidence, while in the wild ſtate, the chough is fantaſtic and particular. He chooſes old towers or inacceſſible rocks, but not indiſcriminately; for he prefers the rocks on the weſt of *England*, to thoſe on the ſouth or eaſt. His reſidence among the *Swiſs* mountains, is alſo partial, where no cauſe of preference can

* Buffon, tome 18, page 28. † Le Corracias, Buffon.

be aſſigned. The female lays four or five white eggs, ſpotted with a dirty yellow. *Gerini* mentions a chough with the bill and feet black, which may be regarded as a variety of the ſpecies now deſcribed *.

The Wood Crow from Switzerland †.

THE birds of this ſpecies are migratory in this country. They arrive commonly in the month of April, and take their departure in June, at an earlier period than any other bird of paſſage. They much reſemble the chough in colour, but are eaſily diſtinguiſhed by a ſhort creſt that hangs down upon the back part of the head. This tuft makes its appearance after the bird is grown up; and frequently the feathers that compoſe it, drop in old age, which makes the bird appear bald. Theſe crows build in the higheſt rocks, as if appriſed of the hoſtility of man to their young: The precaution, however, is ineffectual, for they are frequently robbed of their family by boys hung over precipices by ropes.

The Carrion Crow ‡.

THESE voracious birds paſs the Summer in the foreſts, from which they iſſue, from time to time, in order to procure food for themſelves and their young. They are extremely deſtructive to partridges and other birds, by plundering their neſts; from which they are ſaid to carry the eggs to their young, by breaking a ſmall hole in one end, into which

* Storia degli uccelli, tome 2, p. 38. † Le corracias huppé, Briſſon.
‡ La Corneille, Briſſon.

which they introduce their bill. They approach the ſhepherd and the huſbandman with great familiarity: When, however, they obſerve him armed, they keep at a ſecure diſtance, and ſo narrowly watch his motions, that they are but rarely ſhot.

The female is known by her plumage, which ſhines with leſs luſtre than that of her huſband. It is ſaid that the carrion crows pair for life; and that, when one dies, the ſurviver continues faithful to the laſt, ſpending the remainder of his days in an irreproachable widowhood *. The attachment of theſe birds to their young, is remarkable: If a kite or hawk happen to paſs the neſt, both parents unite in its defence, and attack the invader with ſuch fury, that the raſhneſs of his intruſion is often expiated by death.

Their care of their young continues till they are fully able to ſubſiſt by their own labours. Their food is ſo various, that they may be held omnivorous. Inſects, worms, fiſh, fleſh, and grain, ſerve all equally to ſatiate their indiſcriminate gluttony. This ſpecies, though not numerous, is widely ſpread over both continents. Perhaps there are few places where it is not to be found. *Linnæus* indeed makes no mention of it in his enumeration of the birds in *Sweden*.

The Rook †.

In *Britain* this ſpecies of crows is ſo common, that a deſcription of it would be ſuperfluous. The rook is indiſputably a granivorous bird; for though it ſometimes devours worms and inſects, that is probably owing to the failure

* Buffon, tome 18. p. 47. † La Corneille Moiſſonneuſe, Briſſon.

failure of its proper food: The ſtrong muſcular gizzard, and the large ſize of the inteſtines, are full indications of the purpoſes of nature in forming this bird. The rooks, in ſome countries, have become ſo numerous from the increaſe of planting, that they commit great devaſtation among ripe corns, and on newly ſown fields. There the huſbandman has melancholy proofs of their granivorous inſtinct.

Theſe birds not only feed and fly in flocks, but build alſo in ſociety; which, it is alleged, they regulate by a complete ſyſtem of juriſprudence. They ſeem indeed to have ſome idea of ſeparate property. No one is allowed to carry off the materials from another's neſt, and every crime againſt the peace of the community is puniſhed with ſeverity. The delinquent is attacked by thoſe who are inveſted with authority; he is by them chaſtiſed according to the nature of his offence, and ſometimes baniſhed from the commonwealth. In *France* * they are birds of paſſage, where they arrive about the end of Harveſt and announce the approach of Winter: In *Sileſia* †, on the contrary, they arrive in Spring, and take their departure in Autumn. Rookeries do not appear to be ſo common in any part of *Europe* as in *Britain*, where the young are eſteemed as an article of food. It would ſeem, that in *Italy* this ſpecies is altogether unknown.

The Royſton, or *Hooded Crow* ‡.

THE colour of this bird at once diſtinguiſhes it from every other ſpecies of crow. The head, the wings, and the

* Buffon, tome 18. p. 59. † Schwenchfield. Avarium Sileſiæ, p. 243.
‡ La Corneille Mantelée, Briſſon.

the tail, are of a fine black, with reflections of blue. Along the back and breaſt, as far as the tail, a kind of greyiſh mantle covers this bird, and, in moſt countries, has been the occaſion of its name *.

It lives, like the rook, in ſociety, and is ſtill more familiar with the human ſpecies. During the Winter it approaches our habitations, and lives in our neighbourhood from choice. The royſton crow is a bird of paſſage, arriving regularly about the end of Autumn, and departing in Spring. The place of its retreat, where it neſtles, and rears its young, is ſtill unknown. Some have aſſerted that it retires only to the mountainous parts of the country: Since, however, none are ever ſeen in this iſland during Summer, it is probable that they leave it entirely at that ſeaſon. It appears from *Linnæus*, that theſe birds perform the duty of incubation in the northern parts of *Europe*; for their neſts are frequently ſeen in the foreſts of *Sweden* †. They commonly lay four eggs. The young, when excluded, are fed at firſt chiefly with inſects; afterwards they are omnivorous.

The Jackdaw ‡.

NEARLY allied to the crows, and of the ſame family, is the jackdaw, a bird whoſe copious vocabulary is become proverbial. The jackdaws, like the rooks, fly in large flocks: They form indeed a kind of nation wherever there are old buildings or rocks adjoining, that will admit

* Fauna Suecica, page 25.

† From this circumſtance it is called Monacchia by the Italians, and Mantelée by the French.

‡ Le Choucas, Buffon.

admit of the indulgence of their gregarious habits. The male and female, when once they are paired, remain long faithful to each other. In conſequence of this attachment, as ſoon as the return of ſpring gives the ſignal for a new generation, the male returns to his former miſtreſs. He then makes his advances with all the aſſiduity of love: Then his language is moſt diffuſe, is beſt ſpoken, and beſt underſtood. A thouſand careſſes are ſeen to paſs between the fond couple; who prepare to fulfil the purpoſe of nature, by every gradation of deſire, and through all the ſhades of affection, before they deliver themſelves up to full union.

After fecundation, the female lays about ſix eggs of a greeniſh colour; and, through every ſtage of her employment in rearing the family, ſhe is aſſiduous in performing the duties of a mother. The greater part of the jackdaws that are reared, leave the country at a certain ſeaſon of the year: Some, however, always remain, and are ſeen often joining themſelves to the flocks of rooks and royſton crows. They are eaſily tamed, and learn to ſpeak with facility. They ſeem to take a pleaſure in domeſtication; but they are by no means faithful domeſtics. They ſteal meat after their wants are ſupplied, and they conceal what they are unable to uſe. They are particularly fond of every ſhining ſubſtance, and have been known to carry off the ſpectacles from a man's noſe while he ſat reading. They frequently ſteal money and jewels, of which they can make no uſe, and thus empoveriſh their maſters without enriching themſelves *.

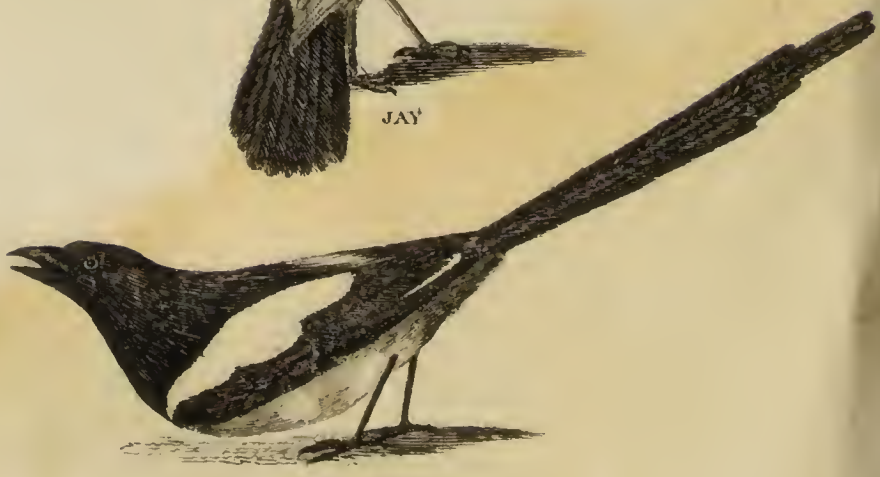
In different countries there are found ſeveral varieties of the jackdaw. Some have been ſeen altogether white in *Norway* and other cold countries: Such too have been found

* Buffon, tome 18. p. 73.

Plate XI

RAVEN

JAY



MAGPIE

From Mr. Wier's Muſeum

Bewick f.

found in *Poland*, where the whiteneſs could not be produced by cold; it ſeems therefore to be a deviation from the appointment of nature, ariſing from ſome vice in the conſtitution, like the whiteneſs of ſome negroes on the coaſt of *Africa*.

The Magpie *.

THE marks of this beautiful bird are ſo well known, that it is unneceſſary to detain the reader with a particular deſcription of them. It is, in many reſpects, nearly allied to the crow; its ſhape and manner of living are nearly ſimilar: And hence it is claſſed by the *Swediſh* naturaliſt in the ſame genus. The magpie devours, like the crow, every kind of fruit, grain, or carrion: It is in particular deſtructive to the eggs and young of the feebler tribes of birds. Inſects, and their *larvæ*, depoſited on the backs of animals, it alſo devours; and for this reaſon is often ſeen perching upon cows, pigs, and ſheep. Its wings are ſhorter in proportion, than thoſe of the crow, which renders it much inferior in the length and eaſe of its flights. For this reaſon, although, like the raven-crow, it has been bred to the chace, it cannot prove a ſucceſsful hunter. It is endowed with wonderful docility; and there is no bird more familiar, when tamed. *Buffon* mentions one which lived day and night among cats, and ruled them with a tyrannical ſeverity †. This ſpecies is ſpread over the greateſt part of *Europe*, except

* Corvus Pica, Lin. La Pie, Briſſon.

† Tome xvii. p. 86.

the mountainous and cold regions of *Lapland* *. When diſturbed during the time of neſtling, laying, or incubation, the pie will erect a ſecond, ſometimes a third neſt; but the number of her eggs is always fewer in the ſucceeding than in the firſt brood. The longevity of this bird is uncertain: Dr. *Derham* is ſaid to have kept one for twenty years; but at that period it was totally blind with age. Its general character is thus deſcribed by *Goldſmith*:

" Were its other accompliſhments equal to its beauty, " few birds could be put in competition. Its black, its " white, its green and purple, with the rich and gilded " combination of the gloſſes on its tail, are as fine as any " that adorn the feathered tribe. But it has too many of " the qualities of a beau, to depreciate theſe natural per- " fections: Vain, reſtleſs, loud, and quarrelſome, it is an " unwelcome intruder every where; and never miſſes an " opportunity, when it finds one, of doing miſchief ‡".

Briſſon mentions five ſpecies of magpies of foreign countries, that ſeem very nearly allied to ours, except in the circumſtance of colour. That of *Senegal*, that of *Jamaica*, that of *Mexico*, are black, mingled with green and violet. The ſmall pie of *Mexico*, and that of the iſland of *Papo*, are alſo black. The laſt, from the top of the bill to that of the toes, meaſures only nine inches.

* Vide Fauna Succica, No. 76. ‡ Vol. v. p. 238.

The Jay *.

THE laſt of this numerous tribe of birds is the *jay*; whoſe characteriſtical marks are ſufficient to diſtinguiſh him from every other of this family, and whoſe manners and inſtincts are, at the ſame time, ſo ſimilar to thoſe of the other ſpecies, as to prove his affinity to them all.

" ——————*Facies non omnibus una,*
" *Nec diverſa tamen: Qualem decet eſſe ſororum* †."

He is much ſmaller than the magpie, and is diſtinguiſhed by a mark of different ſhades of blue on each wing, and alſo by a tuft of feathers upon his head, which he can raiſe or depreſs at pleaſure. The male is diſtinguiſhed from the female by the largeneſs of his head, and by the vivacity of his colours. The young too of this ſpecies differ in their plumage from the adults; hence the inconſiſtencies and differences in the deſcriptions given of it by naturaliſts.

The jay is lively, petulant, and quick in his motions. He is much addicted, in his domeſticated ſtate, to tranſports of anger, which ſometimes make him forgetful of ſelf preſervation. In a cage, therefore, he ſoon loſes his beauty, by the perpetual rubbing and tearing of his feathers, to which he gives way in theſe tranſports of anger. In his wild ſtate, he is very profuſe of his voice, which is harſh and diſagreeable. He has a faculty of imitating the ſounds of other birds of harſh voices, ſuch

* Le Geai, Buffon. † Ovid Met. Lib. II. Lin. 13, 14.

as the hawk and the owl. When a fox or an owl appears in the wood, he utters piercing cries, in order to aſſemble the reſt of his ſpecies, and to attack the common enemy.

The jays indulge in no familiarity with man. They diſcover all that ſhyneſs and timidity which is natural to thieves. They neſtle in the woods, where they prefer the talleſt oaks, and thoſe moſt remote from the haunts of men. They do not conſtruct their neſts with the ſame care and neatneſs as the magpie. It is formed of roots and ſmall twigs woven together, without any internal lining. The young leave the neſt in July, but accompany their parents during the winter; after which the family ſeparates, two and two, for the purpoſe of rearing new ones.

Plate XII

ROLLER

ORIOLE

MINO

Section VIII.

Genus XII.—*The Roller* *.

This tribe is nearly related to the crows, and is therefore ſtiled by *Linnæus*, *coracias*; a word applied by *Ariſtotle* to what is now known by the name of the *Corniſh chough* †. That naturaliſt enumerates ſix ſpecies, and M. *Briſſon*, ten. The roller is a bird of paſſage, found at certain ſeaſons of the year in *Europe*, *Aſia*, and *Africa*, and in the hot climates of *America*. It is more wild and untractable, than the jay or the magpie; and it does not appear that any efforts uſed to teach it to ſpeak, have ever been ſucceſsful ‡; though, from the delicate hue of its plumage, many attempts of this kind muſt have been made. Its colour forms a moſt beautiful aſſemblage of blue and green, mixed with white, and heightened by the contraſt of more obſcure and leſs vivid colours.

The rollers inhabit the thickeſt and moſt unfrequented woods; from which they iſſue ſometimes, in the company of the jay and the crow, to fields of ploughed ground, to gather roots and worms, that have been turned up by the plough. They are not carnivorous, except in caſes of neceſſity; and their fleſh, in Autumn, is ſaid to be good eating. Their breadth, when flying, is about twenty-

* Coracias, Lin. Le Rollier, Buffon.

† Hiſt. Anim. Lib. IX. cap. 24.

‡ Buffon, Tome 18. Vide l'article Rollier, p. 138.

twenty-three inches: The bill ſtraight, bending a little at the point; the edges ſharp. The two exterior feathers in the male roller are longer than the reſt; ſome parts of the body alſo differ, in colour, from thoſe of the female.

There is a numerous liſt of birds in foreign countries nearly reſembling the *European* roller, and which have been therefore diſtinguiſhed by the ſame name. The roller of *Abyſſinia* and of *Angola*, have two lateral feathers of the tail far ſurpaſſing the reſt in length; and ſeem, from that circumſtanee, to form an intermediate ſpecies between our roller and the bird of *Paradiſe*. *Edwards* has, in fact, termed the roller of *Angola*, the golden bird of *Paradiſe*. The roller of *Mindanao*, of the *Eaſt Indies*, of *Madagaſcar*, and that of *Mexico*, have been admitted into this genus. They are diſtinguiſhed by minute differenees, which it is not our purpoſe to inveſtigate. They, however, illuſtrate the obſervation, that, in a dry and warm climate, the luſtre of the plumage of birds is increaſed, and the colours heightened.

Genus XIII.—*Oriole* *.

The *oriole* ſeems to be nearly allied to the ſtarling of *Europe*, and the generic repreſentative of that genus in the New World. *America* is their native country; and the few, that are ſeen on the ancient continent, have been tranſported from it †. This genus is characteriſed by a long, ſtraight, and conic bill, very ſharp at the point and the edges: The mandibles are of equal length, and bent a little downwards. That ſpecies, called in *Jamaica* the great *Banana* bird, is remarkable for the variety of its colours. The black, white, and orange are ſo finely diſtributed, and relieve each other ſo frequently, that one would imagine the variety aroſe from a combination of a much greater number of colours. The black prevails on the head, the anterior part of the neck, the middle of the back, and the wings. The orange-yellow occupies the intervals, and adorns all the lower parts of the body. Birds of this ſpecies are about the ſize of a blackbird: They hop like a magpie, and are found every where between *Carolina* and *Braſil* ‡. They are, in ſome reſpects, birds of prey §; for though their ordinary food be inſects, they ſometimes chace other birds.

The orioles are of a very ſocial diſpoſition. Love, which ſeparates ſo many other animals into pairs, in order to propagate their kind, and fulfil the deſires of nature,

* Oriolus, Lin. Le Troupiale, Buffon.

† Buffon, a l'article Troupiale, T. xviii. p. 198.

‡ Marcgrave, Hiſt. Braſil, p. 192. § Sloane's Hiſt. of Jamaica.

ture, ſerves only to ſtrengthen the bonds of their union. A great number of pairs are often ſeen upon the ſame tree, neſtling, hatching, and educating their young together. They always chooſe, for this purpoſe, one of the talleſt trees, and neareſt the dwellings of man, for conſtructing their neſts, which are of a cylindrical form, ſuſpended from the extremity of the higheſt branches, and floating in the air. The young are thus in continual motion, as if rocked in a cradle.

"A traveller who walks into the foreſts of thoſe "countries, among the firſt ſtrange objects that excite his "curioſity, is ſtruck with the number of birds neſts hang-"ing at the extremity of almoſt every branch *." For not only the oriole, but alſo many of the woodpeckers and other tribes build their neſts in this manner. The whole hiſtory of nature does not, perhaps, afford an example of a more ingenious and ſucceſsful precaution than that of theſe birds, againſt thoſe animals by which they are ſurrounded, and which are hoſtile to their kind. In well peopled and cultivated parts of the world, where the feathered race have moſt to fear from man, they generally avoid this formidable foe, by cautiouſly concealing their habitations from his ſight. But, in thoſe ſolitary and extenſive foreſts of the New World, where man is ſeldom ſeen, the bird hangs its neſt up to general view, and is only ſolicitous that it be beyond the reach of thoſe voracious animals who live by robbery or ſurpriſe. With this view, the neſt is attached to the depending points of the large branches of the *banana* or *plantain* trees; where the monkey and ſerpent are ſet at defiance. On one of theſe immenſe trees, ſays *Goldſmith*, is ſeen the moſt

* Goldſmith's Nat. Hiſt. vol. v. p. 254.

moſt various, and the moſt inimical aſſemblage of creatures that can be imagined. The top is inhabited by monkies of peculiar fierceneſs, that drive off all others; lower down, numbers of large ſnakes twine about the vaſt trunk, patiently waiting till ſome ill-fated animal come within the ſphere of their activity; and at the extremities of the branches hang the dangling neſts of the oriole, and many other tribes of birds, whoſe delightful plumage is variegated with the moſt exquiſite ſtrokes of nature's pencil.

*The Banana Bird**.

THIS ſpecies of oriole is about ten inches in length, and fourteen in breadth. It is ſpread over the continent of *America*, from *Carolina* to *Braſil*. It hops like the magpie, and reſembles him in its manners. The banana birds live upon inſects; but ſometimes unite in hunting large birds, which they kill and devour †. Every inſectivorous bird may be rapacious, and devour larger animals, as often as he finds them in his power, by aſſociating his ſpecies againſt them. Theſe birds are in fact extremely ſocial in their manners; for love, which diſperſes the families of ſo many other kinds of birds, ties their union ſtill more cloſely. Far from ſeparating, two and two, in order to fulfil the purpoſe of nature, and multiply their kind, you frequently find many pairs taking up their reſidence upon the ſame tree, where they are, ſeverally, employed in building their neſts, laying, hatching, and rearing their young. In theſe

* Le Troupiale, Buffon.

† Sloane's Hiſt. of Jam. and Albin, tome ii. p. 88.

neſts, which float in the air, the young are continually rocked by the ſlighteſt breeze.

The banana birds eaſily ſubmit to domeſtication and captivity, which is generally the caſe with ſocial and gregarious birds. They are adorned with a beautifully variegated plumage; but their moſt diſtinguiſhing characteriſtic is a long, arched, and ſharp pointed bill.

The Red Winged Starling *.

THIS bird belongs to the genus of orioles, and has obtained the name of *commander* among the *French Americans*, from a red mark on the fore part of its wings, reſembling the diſtinctive badge of an order of chivalry. The plumage of the reſt of the body is wholly black, which renders this ſpot more remarkable, and gives it greater effect. The female differs a little from the male in this ſpecies: The red ſpot of her wing is more pale, and borders upon yellow; the blackneſs of her feathers alſo, admits a mixture of grey, and her ſize is ſomewhat ſmaller.

This ſpecies, in bulk and ſhape, nearly reſembles the *European* ſtarling. It is, from the tip of the bill to the end of the tail, about nine inches long; and its breadth, from wing to wing, is about thirteen inches. It is ſtill more univerſally ſpread in the New World than the laſt ſpecies, becauſe it can accommodate itſelf to a cold as well as a hot climate: Hence it is found in *Virginia*, *Carolina*, *Luiſiana* and *Mexico*. It is eaſily tamed, learned to

* Le Commandeur.

to ſpeak and ſing; and is very playful, either in the cage, or when ſuffered to go through the houſe at large: This liberty is frequently allowed it, from the familiarity which it ſoon acquires. The red winged ſtarlings are peculiar to the New World; for, though ſome of theſe birds have been ſhot in the neighbourhood of *London*, theſe muſt have been ſuch as had eſcaped from confinement.

They eat indiſcriminately, inſects, worms, and grain: The laſt, however, is their favourite food. So voracious are they, that, when they join with *Jamaica* pies, and invade a field of corn, the depredations they commit are ſcarcely credible. They generally mingle with birds of different ſpecies: And, when a flock of this mixed nature is ſhot at, two or three different kinds of birds ſometimes fall together.

The manner of their neſtling is very different from that of the ſpecies firſt deſcribed. They build always among reeds, and at ſuch an height from the ground, that water can never deſtroy the eggs. Such a method of nidification clearly evinces the difference of the two ſpecies. In *Luiſiana* they only appear during winter; but in ſuch vaſt flocks, that ſeveral hundreds of them are ſometimes taken in the ſame net. The bird-catcher is no otherwiſe rewarded for his dexterity, than by the ſatisfaction of having killed a deſtructive bird; for its fleſh is always unſavoury, and bad eating *.

There are to be found, in *America*, many ſpecies of orioles, and many varieties of each ſpecies: But it is ſufficient for our purpoſe to have given the outlines of their generic character, and deſcribed one or two ſpecies that appear moſt remarkable.

* Buffon, Tome xviii. p. 217.

The oriole, the thruſh, and the woodpecker tribes nearly reſemble and approximate each other. What one naturaliſt arranges under one genus, is found claſſed by another, for equally plauſible reaſons, in a different family. *Edwards*, *Linnæus*, *Buffon*, and *Briſſon*, all differ in their claſſification of theſe ſubordinate tribes of the feathered race.

Genus XIV.—*The Grakle* *.

Of this genus *Linnæus* has eight ſpecies. The great nomenclator, *Briſſon*, has no genus correſponding to it. The different ſpecies of the grakle are mingled among the orioles, pies and thruſhes, in his ſyſtem. The characters of the grakle are, the bill convex, thick, and compreſſed a little towards the ſides; the tongue entire, and ſharp; the toes, three forward, and one backward; the claws hooked and ſharp.

The firſt ſpecies deſcribed by *Linnæus* is the *religioſa* or *mino* of Mr. *Edwards*. It is wholly black, except a double crown of yellow feathers behind each ear, which nearly meet above. The line of ſeparation between theſe large yellow ſpots, is a ſtroke of black feathers, riſing from the baſe of the bill. This bird is about twenty inches between the wings. The grakles are all foreign birds; and ſome of the ſpecies are celebrated for ſinging and ſpeaking. The mino, in particular, is ſaid to be more fluent than the parrot, and to be liberal, in the exerciſe of its talent, to a degree bordering upon importunity.

* Gracula, Lin.

Section IX.

Genus XV.—*The Bird of Paradiſe* *.

Buffon has two, and *Linnæus* three ſpecies of theſe celebrated birds, concerning which the wildeſt and moſt incredible fictions have been propagated and believed. The reſidence of this bird was ſaid to be in the earthly paradiſe. It was believed by the credulous and ignorant, the moſt numerous claſs of men, that it lived alone upon the air and the dew; that it had no intrails, nor feet; but remained perpetually floating upon the air, while ſleeping, as well as while awake; while hatching and laying, as well as while procreating its young †. Inſtead of a ſtomach and inteſtines, which, to ſo extraordinary a feeder, would have been uſeleſs, the cavity of its abdomen was ſaid to be filled with fat ‡. The hunters who procure and ſell theſe birds, cut off their legs, and take away their intrails, the better to preſerve and carry them; and perhaps too with a view to perpetuate the belief of thoſe fables, which they have found ſo beneficial to their trade.

If any thing could give an air of probability to the perpetual flying of the bird of paradiſe, it might be its extraordinary lightneſs. A bird no larger than a thruſh, ſwelled to an immenſe bulk by its feathers,

* L'Oiſeau de Paradis, Briſſon. Paradiſea, Lin.

† Vide Acoſta, Hiſt. Nat. & Mor. des Indes Orientales & Occidentales, page 196.

‡ Aldrovandi Ornithologia, Tom. I. p. 820.

Plate XIII

thers, is rendered ſpecifically lighter than any other. About forty or fifty long feathers ſpring from each ſide, below the wing, which, mingling with thoſe of the tail, augment the apparent ſize of the animal, without adding hardly any thing to its weight. However well qualified to ſupport itſelf in the air, the bird of paradiſe is unable to direct its flight, either acroſs or in oppoſition to the wind; and it is obſerved to prefer thoſe places, which are moſt ſheltered *.

In ſome parts of *India*, the feathers of this bird bring a great price. They are extremely well ſuited for the ornaments of dreſs, both by their lightneſs and their luſtre. About a century ago, they were employed for the ſame purpoſes, for which thoſe of the oſtrich are now purchaſed. In *India*, however, they derive their principal value from certain miraculous virtues which the prieſts have aſcribed to them, and which have procured the animal to which they belong, the title of *the bird of God.*

What renders this tribe ſtill more remarkable, is two long naked feathers, like threads, that ariſe in the uropigium, above the falſe tail already deſcribed. Theſe are of an enormous length, extending above a foot beyond the longeſt of that large maſs. The head, back, and breaſt of theſe birds, are covered with ſhort ſtraight feathers, which, to the touch, are ſoft like velvet. They are of different colours, and ſo changeable in their hue, that they vary continually, according to the different points from which they are viewed. They are confined in their reſidence to a few of the *Spice* iſlands, and *New Guinea*. Their decided preference of the *Spice* trees, has led ſome to believe, that they find upon them their favourite

* Buffon, Tome xviii. p. 154.

favourite food. *Linnaeus* *, however, aſſerts, that they are inſectivorous, and feed moſtly on the butterfly. Their uſual reſidence is in the woods, where they are ſhot by the *Indians* with arrows of reeds. For this purpoſe the *Indians* have a curious method of concealing themſelves in ſmall huts, that are faſtened among the branches of the trees.

Belon pretends that the bird of paradiſe is the ſame with the phœnix of the ancients; but the countries which they inhabit are too diſtant for ſuch an hypotheſis; *Egypt* being the habitation of the latter, and the eaſtern parts of *Aſia* that of the former. There does not ſeem to be the moſt diſtant affinity between them, excepting the monſtrous fables to which both have given riſe.

Marcgrave has inſerted a deſcription of this ſpecies in his hiſtory of the birds of *Braſil*; but it does not appear, that any of them were ever ſeen in *America*, unleſs thoſe tranſported thither by the veſſels that trade between *Aſia* and that continent. It is extremely improbable, that a bird, ſo little capable of directing its flight amidſt a gentle breeze, ſhould ever have attempted ſo long a voyage. The bird of Paradiſe is confined within very narrow limits in that continent which it inhabits, and never has ſhewn a diſpoſition to go beyond them. It is not to be ſuppoſed, therefore, that it ſhould ever have attempted to croſs the *Pacific* ocean.

It does not appear that this bird was known either to the *Greeks* or *Romans*. The ſtriking and ſingular characters by which it is ſo remarkably diſtinguiſhed from all the other tribes of the feathered race, could not fail to have been recorded in ſome part or other of their writings,

* Syſtema Naturæ, Edit. x. p. 110.

writings, had the bird been known. *Pliny* was ſufficiently diſpoſed to indulge in fabulous and extravagant fictions, without inquiring ſtrictly into their origin. In the hiſtory of this bird, he would have had a full harveſt of romantic and ſurpriſing incidents. *Ariſtotle* expreſsly wrote a treatiſe upon marvellous appearances. Had he been acquainted with the bird of paradiſe, he would certainly not have been guilty of ſo ſtriking an omiſſion.

The King of the Birds of Paradiſe *.

THE *Indian* name of this ſpecies ſignifies the *bird of God.* That given it by the *Engliſh* writers, had its origin in thoſe fables that were propagated by the ſailors, who retailed the fictions they had learned from the ſuperſtitious *Indians*. One of theſe was, that each ſpecies of the birds of Paradiſe had its own king, to which every individual paid ſubmiſſion and obedience: That this king always flew in a higher region of the air than his ſubjects, from which he iſſued various orders to them; ſuch as, to go and examine the ſprings where he might drink with ſafety, and to taſte of them before him.

This alleged king of the birds of Paradiſe, in many circumſtances reſembles that ſpecies of birds, and in more, perhaps, differs from it. His head is garniſhed with the ſame velvet covering; his eyes are equally ſmall; and he has the two ſilous and naked feathers ſpringing from the uropigium, and going beyond the tail. Theſe are, however, much inferior in length, and

* Le Manucode, Buffon.

their extremity is barbed or, curled up, like a lock of hair. He differs from the birds of the laſt ſpecies, in wanting that large maſs of feathers above the tail; he is of ſmaller ſize; his bill is longer and whiter; his wings are alſo longer, and he has not the long feathers under them, that diſtinguiſh theſe ſingular creatures. There are three or four other ſpecies of birds of Paradiſe, all ſingularly fantaſtical in their appearance, and partly juſtifying the fanciful accounts that travellers have given of them.

GENUS XVI.—*The Curucui* *.

THE birds of this genus are natives of *Braſil*, and are named *curucuis* from the ſimilarity of that ſound to their voice. There are three individuals of this tribe preſerved in the cabinet of the *French* king, and deſcribed by M. *Buffon* †. Their manners are but little known in *Europe*. They ſeem to fill up an intermediate ſpace between the cuckoo and the woodpeckers: *Edwards* has accordingly deſcribed them as a ſpecies of the former of theſe genera. Their diſtinguiſhing characters are, a bill, ſhort, thick, and convex; noſtrils covered with briſtles; legs feathered to the feet; and two toes before, with as many behind.

The red bellied curucui, deſcribed by *Buffon*, is about ten inches and an half in length. The head, neck, and breaſt, are of a brilliant green, changing, in different poſitions, into a lively blue. The wings are of a greyiſh blue, variegated with ſmall lines of black, in a zig-zag direction.

In *St. Domingo*, the *French* call this bird the *Engliſh lady*. *Deſhayes*, the correſpondent of the cabinet of curioſities at *Verſailles*, thus deſcribes its manners ‡. It is into the depths of the foreſt, ſays he, that the curucui retires, during the ſeaſons of love. Her ſad and melancholy accents, ſeem to be the expreſſion of a deep ſenſi-

* Trogon, Lin. † Tome xxi. page 288.

‡ Vide Buffon, ubi ſupra.

bility, which draws her into the defert, to enjoy the foli-tude, the languor, and tendernefs of love ; feelings feem-ingly more agreeable to her, than its tranfports. Her notes alone difcover her retreat, which is almoft always inacceffible, and difficult to find. What analogy this be-haviour bears to the conduct of an *Engliſh* lady, I leave this ingenious *Frenchman* to difcover.

The pairing feafon, in this genus, commences in the month of *April*, when they fearch out the hole of a tree for their neft. This manfion they carefully line with duft of worm-eaten wood, which renders it almoft as foft as cotton or down. Their ftrong and fharp bills enable them to enlarge, or model this apartment, at pleafure. When the work is completed, the female lays three or four white eggs, nearly of the fize of thofe of the pigeon ; and, while employed in incubation, fhe is not only plentifully fupplied in provifion by her uxorious hufband ; but is carefully watched, and foothed by his fong, from a neighbouring branch. This bird, fo filent at all other times, makes the woods echo with blandifh-ing notes during the period of incubation ; which, inſipid to us as they may appear, no doubt foothe the cares of his cherifhed fpoufe.

The young, on their firft appearance, are perfectly naked ; their head and beaks appear of a prodigious fize, when compared with their body. They are at firft fed with fmall worms and infects, and are no fooner capable of providing their own fubfiftence, than they abandon themfelves to thofe folitary habits, that diftinguifh their race.

Plate XIV

SPOTTED CURUCUI

RED-CROWNED BARBET

LARK-HEELED CUCKOO

YELLOW CHEEKED BARBET

YELLOW CRESTED WOODPECKER

Genus XVII.—*The Barbet* *.

This family is eaſily diſtinguiſhed, by a long beard, conſiſting of a number of *vibriſſæ*, or briſtles, which ſurround the baſe of the bill, and cover it half way to the point. The barbet is about ſix inches in length; the upper part of its head is of a reddiſh colour; the neck beautifully incloſed in a ring of red and black feathers, that nearly ſurround it; the reſt of the plumage is brown, with a ſhade of red. † *Buffon* has with propriety diſtinguiſhed thoſe of the new, from thoſe of the old continent. The former are of a very ſolitary nature. Avoiding, like the *Engliſh lady*, the haunts of men, and even the open plain, they court the ſolitude of the deep foreſt, where they ſeem to find their ſweeteſt enjoyments. Their flights are ſhort and heavy; they ſeldom perch on the higher branches of a tree; and when ſitting, they affect a grave, and even diſconſolate air.

The barbets of the ancient hemiſphere, which are found in the iſlands of the *Indian* ocean, are diſtinguiſhed by the thickneſs and ſhortneſs of the beak. Far from affecting the ſtupid gravity of the *American* ſpecies, they attack the ſmaller tribes with the boldneſs and intrepidity of the butcher-bird.

* Bucco, Lin. Le Barbu, Buffon. † Tome xxii. p. 93.

The Braſilian Barbet *.

M. *BUFFON* terms the *American* barbets *tamatias*; and to thoſe only of the old continent he gives the name of barbets. The *Braſilian* ſpecies is above ſix inches long. The bill is thick, bent down at the point, and covered about one half of its length with a ſtrong beard. The brow and upper part of the head are of a browniſh colour: The plumage on the other upper parts of the body is black, with a ſhade of brown: The under parts are ſpotted with black upon a whitiſh ground. It is a ſilent, ſolitary, and ſluggiſh bird, very ugly, and ill ſhaped.

The Barbet of the Philippine Iſles *.

THERE are two ſpecies of the barbet found in the *Philippines*; the one with a yellow, and the other with a black throat. But, as their manners and economy are already deſcribed, in giving the hiſtory of this genus, we ſhall not detain the reader by particulariſing the various colours and ſhades, that diſtinguiſh the different ſpecies belonging to this tribe.

* Le Tamatia, Buffon. † Le Barbuc a Gorge noir, Buffon.

Section X.

Genus XVIII.—*The Cuckoo* *.

This ſingular bird has obtained a name in all languages taken from the ſound of its voice, which is familiar to the inhabitants of almoſt every country. It is, in *Europe*, a bird of paſſage, which appears in the Spring, earlier or later, according to the temperature of the ſeaſon. In *Sweden* †, where the climate is colder than that of *Britain*, it does not make its appearance till nearly a month later in the ſeaſon. Inſects being the food of this bird, its reſidence, in every country, muſt depend on that degree of warmth neceſſary to produce them. The note of the cuckoo is a call to love; and is continued, during the amorous ſeaſon, by the ‡ male only, who ſits upon the withered bough of a tree, and thus invites his female to fulfil the intentions of nature. The name of this bird is, in every country, uſed as a term of reproach; but was originally applied to the faithleſs huſband, from the circumſtance of the female cuckoo laying her eggs in the neſt of another bird, and leaving the incubation of them, as well as the education of her young, to a wrong parent.

The cauſe of this ſingular conduct of the cuckoo has never yet been explained; but it is probably ſome defect in its conſtitution, which diſables it from incubation. There

* Cuculus Canorus, Lin. Le Coucou, Briſſon.

† Vide Fauna Suecica. ‡ Britiſh Zoology, Vol. I. p. 183.

There are no leſs than twenty different kinds of birds to which the cuckoo commits the charge of her young *: The waterwagtail and hedge-ſparrow are moſt commonly favoured with this uncommon mark of confidence. The young ſuffer nothing by being thus nurſed by a ſtranger; for the taſk is generally executed with fidelity and ſucceſs. It is probable that the female cuckoo lays in different neſts in one ſeaſon; for ſhe has been found, upon diſſection, having two eggs fairly formed in the ovary, while it is rare to ſee more than a ſingle cuckoo in the neſt of any bird. The offspring of the cuckoo, is generally fatal to that of the indulgent pair who receive it; becauſe, if their young be hatched nearly at the ſame time with this ſuppoſititious bird, it either deſtroys them, by overlaying them, or by tumbling them over the neſt.

A thouſand improbable fictions concerning this bird have been framed, and believed by the vulgar, which have no other ſupport than their venerable antiquity. It is pretended that the cuckoo is annually metamorphoſed into a hawk: A notion probably founded on the reſemblance of its plumage to that of ſome ſpecies of the hawk. It has alſo been ſaid, that from the ſaliva of the cuckoo ſprings a kind of graſshopper: A ſtory occaſioned by the bird ſearching among the exſudation of the *larvæ* of this inſect, for the ſmall animals contained in it. Fiction is always inconſiſtent and contradictory: Some have reported, that the cuckoo is no ſooner capable of providing for itſelf, than it ungratefully devours its nurſe †. Others pretend, that on its firſt return from its winter-

* Buffon, Tome xxi. a l'article Coucou.

† Vide Linnæi Fauna Succica.

winter-quarters, it haſtens to the place of its nativity, and meets with tranſports of tenderneſs and affection, its foſter-brothers, and her who ſupplied the wants of its feeble age *.

The young cuckoo, when it firſt makes its appearance, uſes an importunate call to its adoptive parents; and, as they cannot, perhaps, feel the tenderneſs of real ones, this cry is often repeated, and rendered ſtill more impreſſive by a quivering motion of the wings, which accompanies it. After the young bird has acquired more ſtrength, it follows the mother to the adjoining branches; and, as ſoon as it perceives her take up any thing in her bill, it inſtantly hurries before her, and redoubles its importunity. The young cuckoo is thus a very troubleſome and expenſive gueſt, from its ſize and voracity: And, when it happens to be committed to the care of a very ſmall bird, it is often with the greateſt difficulty that ſhe can ſupply it and her own family at the ſame time.

Theſe importunate calls of the young cuckoo, begin gradually to abate, as it becomes capable of providing for itſelf. As ſoon as it is independent of parental aſſiſtance, it is ſilent; for it does not utter the note peculiar to the old bird of this genus, during the firſt year. The old birds themſelves become ſilent towards the end of June, though they do not migrate till September. The firſt cold, by deſtroying the inſects, determines them to ſeek for a warmer climate, where they may be ſupplied.

The infecundity of the cuckoo, and her incapacity for incubation, may probably ariſe from the manner of her

* Monſieur Montbeillard, the aſſiſtant employed by M. Buffon, Vol. xxi. p. 315.

moulting, which is more tardy and complete, than that of any other bird. Some have been found in hollow trees, entirely naked, like toads; unable, from this circumſtance, to migrate *. This is not the only bird that builds no neſt; ſome of the woodpeckers obſerve the ſame economy: Nor does the cuckoo alone deſert her eggs, when laid; the ſame indifference characterizes the oſtrich. The cuckoo, then, is not ſo much to be regarded as a ſingularity, as a link in that curious chain followed by nature in her productions. Nor is the complaiſance of thoſe birds which receive her eggs, and rear her young, to be regarded as an unparalleled fact in their hiſtory. They, and many others, will hatch whatever eggs you put under them, and even pebbles that reſemble theſe in colour. In ſome, this neceſſary inſtinct is ſo powerful, that they will ſit their uſual time, after all their eggs have been removed.

It is doubtful whether theſe birds ever pair. The males are more numerous than the females; and, though they are ſometimes ſeen fighting for the female, they ſeem not guided by any individual attachment. When they feel the wants of nature, they gratify them without choice or predilection. When ſatisfied, they abandon their object, and again ſearch out another, which they deſert with the ſame indifference. From theſe clandeſtine and ſtolen embraces, there ariſes a various offspring, which it would be as vain, as it is impoſſible to characterize. *Briſſon* has enumerated no fewer than thirty-eight different ſpecies, moſtly belonging to foreign countries. Some of theſe diſcover but a ſmall affinity to the *European*.

Buffon,

* Four are mentioned by M. Montbeillard, that were found in this ſtate. Vide Buffon, ubi ſupra.

Buffon, or rather his friend M. *Montbeillard*, ſeparates thoſe of *America* from thoſe of the old continent. Of the former he has ten ſpecies, independent of their varieties; and of the latter twenty-three.

In the *European* ſpecies, the bill is black, ſtrong, and about two-thirds of an inch in length. The head, hind part of the neck, the coverts of the wings, and the rump, are of a dove-colour. The throat and upper part of the neck, are pale grey: The breaſt and belly white, croſſed beautifully with undulating lines of black. The wings are long, reaching to within an inch and a half of the end of the tail. The firſt quill feather is three inches ſhorter than the reſt; which are duſky, and barred upon the inner webs with large oval white ſpots. The tail conſiſts of ten feathers, of unequal length, like thoſe of the butcher-bird: The two middle are black, tipt with white; the reſt are marked with violet ſpots on each ſide of their ſhafts *.

There are many varieties of the cuckoo, even of the *European* ſpecies, which may be reckoned the root, or ſtock, from which the other kinds have ſprung. This is ſuppoſed by a very ingenious naturaliſt †, to proceed from the circumſtance of this bird's never pairing. The males rove from female to female, without any individual attachment or fidelity in their amours: And it may therefore happen, that they may be ſometimes wanting in their fidelity, even to the ſpecies. Should this ever take place, and it is highly probable that it may, the progeny derived from irregular alliances, muſt be diverſified according to the difference of the females with which theſe alliances are formed. Hence, probably, the varieties of ſize,

* Britiſh Zoology, Vol. I. Claſs ii. Gen. vii.

† M. Montbeillard, the Continuator of Buffon's Hiſtory.

ſhape, and colour, which have occaſioned ſo many miſtakes in arranging the birds of this genus.

From this variety of form and appearance, many birds have been claſſed with the cuckoo, that have but little affinity to the tribe; while ſome of the ſpecies, have been taken for hawks of different denominations.

Among the birds claſſed in this genus, belonging to the old continent, are the great ſpotted cuckoos, of which one was killed at *Gibraltar*. Theſe are birds of paſſage, which ſometimes viſit the ſouth of *Europe*; but which winter in the warmer climates of *Aſia* and *Africa*. They are diſtinguiſhed by a tuft of ſilky feathers on the crown of the head. The white and black creſted cuckoo is another ſpecies, which fills up the intermediate ſpace between the *European* and the foreign kinds. A male and female of this ſpecies once neſtled in the neighbourhood of *Piſa*, where the female laid four eggs, and hatched her young; a circumſtance in which ſhe differs widely from the females of our ſpecies, which have never been known either to neſtle or hatch in this country.

The Fouraco †.

THIS bird has been ranked among the cuckoos by *Briſſon* and *Linnæus*, without much foundation. It hardly reſembles that genus in any thing but the feet. It is the moſt beautiful bird of *Africa*: Its eye is full of fire, ſurrounded with a ſcarlet cilium. This bird is crowned with a large tuft of ſilky feathers, ſtanding ſo erect and unconnected, that they are tranſparent. The neck and ſhoulders

† Cuculus Perſa, Lin.

ſhoulders are covered with unconnected ſilky feathers, of a beautiful green.

There is a ſecond variety of this ſpecies found in *Abyſſina*, which only differs in the tints and reflections of its colour. Both are of the ſize of a jay, with wings ſhorter, and tails longer, than thoſe of the common cuckoos.

The Cuckoo of Madagaſcar *.

THERE are ſeveral kinds of the cuckoo in this iſland, of one of which the individuals are remarkable for ſize, being nearly as large as common hens. All the upper part of their bodies is of a deep olive colour, ſhaded with waves of dark brown; the lower parts are yellow, mixed with brown.

* Le Coucou Verdatre de Madagaſcar, Buffon.

Section XI.

Genus XIX.—*The Wryneck* *.

This genus is not numerous. The individuals are no where found in flocks: They arrive in the month of May, a little before the cuckoos, and are conſidered as the harbingers of that bird †. Their food is the ſame, and their manners pretty ſimilar to thoſe of the woodpecker. They have received their *Engliſh* name from their awkward contorſions of the head and neck backwards and forwards, like the undulating motions of a reptile. The bill and toes of the wryneck reſemble thoſe of the woodpecker, and demonſtrate its near affinity to that tribe. It has, however, always been conſidered by naturaliſts as forming a ſeparate family. It is about the ſize of a lark: Its plumage is a mixture of grey, black, and tawny, in waves and ſtrokes ſo finely mingled and contraſted, as to produce a rich penciling, even of theſe ſombre colours.

The wryneck has been compared to the woodcock, in its plumage; but it is much more variegated. Its tints are more lively and diſtinct; and its feathers are ſofter to the touch. When perched, it ſtands ſo erect, that it ſeems bent backwards. It retires into the trunk of a tree

* Iynx Torquilla, Lin. Le Torcol, Briſſon.

† Amænitates Acad. iv. 584.

tree to reſt; but does not gnaw it, like the woodpecker. Ants, which are the food of this bird, are not taken by the beak, but ſtabbed with the ſharp point of its tongue, and thus drawn into the mouth. The neſt of birds of this genus, is in the holes of rotten trees, which they line with duſt. Their eggs are from eight to ten, and as white as ivory. The female, during incubation, and the young, are both fed by the male. The brood is commonly hatched about the middle of June. The young are ſoon capable of providing for themſelves; and, when this happens, they all ſeparate and diſperſe, without ſhewing the ſmalleſt attachment to their parents, or to each other.

The food of theſe birds, being ants, and therefore not eaſily procured, it is hardly poſſible to keep them in a cage. The few experiments, that have been made to domeſticate the wryneck, have been unſucceſsful. It dies with hunger, rather than taſte any other ſpecies of food. About the end of Summer, it grows remarkably fat, and is then ſaid to be excellent eating. It has, in ſome parts, been called an *ortolan*, from its reſemblance to that delicate bird. The bird-catchers take a few of them before their departure, in the beginning of September, and bring them to account in the *London* market.

There are no different ſpecies, nor even varieties of this bird; but, although it is no where very numerous, it is ſpread over the whole of the ancient continent, from *Lapland* * to *Bengal* †. It appears from *Philoſtratus* ‡, that it was known to the ancient *Magi* at *Babylon*.

* Rudbeck Laponia Illuſtrata, page 295.
Edwards, Preface, p. 12. ‡ Vita Apollon.

Genus XX.—*The Woodpecker* *.

Plenty of proviſion is the ſource of that appetite for ſociety, and that gentleneſs of manners, which characterize a large portion of the feathered tribes; which, having no cauſe of quarrel, enjoy, without trouble, the rich fund of ſuſtenance which ſurround them. In the continual banquet of Nature, the abundance of every ſucceeding day equals the profuſion of the paſt. Such is the condition of granivorous birds; but with the rapacious, every circumſtance is different. When theſe aſſemble, it is for plunder, and not for ſociety. Occupied continually by the purſuit of their prey, which flies before them; preſſed by want, and checked by dangers; they have hardly any attachments beyond themſelves, and no time that is not employed in providing ſubſiſtence †.

Of all the creatures which nature has compelled to live by chacing either larger or ſmaller animals, there is none to which ſhe has aſſigned ſo hard and laborious a life as the woodpecker. While other birds are allowed to exerciſe their courage or addreſs, in the free exerciſe of flying, running, ſurpriſe, or attack, nature has condemned it, like a galley-ſlave, to a life of everlaſting drudgery and toil. The woodpecker, ſubjected to a painful taſk, can obtain no food but by boring the bark and the hard fibres of trees that encloſe it. Occupied continually

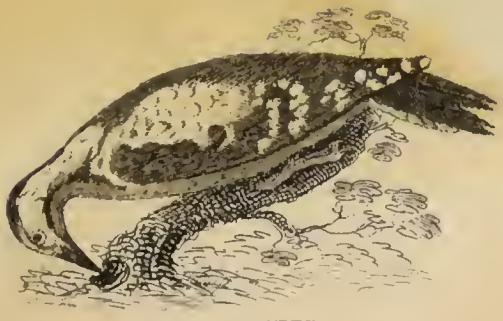
* Le Pic, Briſſon. Picus, Lin. † Buffon, Tome xxii. p. 2.

Plate XV

CUCKOO

LITTLE SPOTTED
WOOD-PECKER

WRYNECK



MIDDLE SPOTTED
WOOD-PECKER

tinually in this work of neceſſity, he enjoys neither relaxation nor reſt; and often ſleeps in the conſtrained attitude in which he ſpent the day. He ſhares in none of the agreeable ſports of the reſt of the tenants of the air; he enters into none of their concerts; he utters only ſavage cries, or plaintive accents, which interrupt the ſilence of the foreſt, and expreſs the efforts of a life of fatigue, and of pain. The manners of this bird are ſuited to its condition: Its air is diſconſolate; the traits of its viſage, harſh. The diſpoſitions of the woodpecker are wild and ſavage: He flies from ſociety, even that of his mate; and, when forced by the impulſe of the ſexual appetite, to ſeek a companion, he does it without that graceful addreſs, with which this paſſion animates creatures of more ſenſibility.

Such are the condition and habits of this bird. Nature, however, amidſt her unkindneſs, has not denied him inſtruments ſuited to his deſtiny. His legs are ſtrong and muſcular; and the diſpoſition of his toes, of which two are before, and two backward, is fitted for a vigorous adheſion to the trunks of trees where his work lies *. His bill, ſquare at the baſe, but flattened laterally towards the top, like a pair of ſciſſars, is the inſtrument by which he cuts the trunks of trees, where the inſects depoſit thoſe eggs upon which he feeds. From his bill, he darts out a long, round tongue, armed at the top with a ſharp bony ſubſtance, like a needle; and with this inſtrument he ſtabs the ſmall worms found in the timber. His neſt is conſtructed of duſt, in the cavity which he has dug; and it is from the heart of the tree that the progeny iſſues, which is deſtined to creep around and gnaw it down.

* Scandit per arbores omnibus modis. Ariſt. Lib. ix. cap. 9.

The ſpecies of the woodpecker are very numerous, and of every ſize, from that of a crow, down to that of the titmouſe. Though the individuals of each ſpecies are not numerous, nature has ſpread them through every country where there are trees. *Briſſon* has thirty-one ſpecies; and to theſe, the indefatigable *Buffon* has added ſixteen others, entirely new. There are only three kinds known in *Britain* *; the green, the great black, and the great ſpotted woodpeckers. The crown of the head, in the firſt ſpecies, is ſpotted with black; the back, neck, and leſſer coverts of the wing, are green; the rump is of a pale yellow; the quill feathers are duſky, ſpotted with white; and the tail conſiſts of ten ſtiff feathers, generally broken, by ſupporting the bird when climbing.

The Great Black Woodpecker †.

THE ancients were acquainted with three ſpecies of the woodpecker peculiar to *Europe*. The great black ſpecies here deſcribed, ſeems confined to particular diſtricts only, and principally to *Germany*. *Ariſtotle* compares its ſize to that of an hen; but by this he can only mean in length; for it is far inferior in thickneſs, being nearly of the bulk of a crow, a name it has received in ſome parts of *Germany*. This bird is ſeldom ſeen in *France* ‡; in *Holland* and *England* §, almoſt never. This is ſuppoſed to be owing to the want of a ſufficient quantity of trees in theſe countries; for it is ſeen in *Sweden*, and parts ſtill

* Vide Britiſh Zoology, octavo edit. Vol. I. page 178.

† Le Pic Noir, Buffon. ‡ Buffon, Tome xxii. p. 42.

§ Willoughby, p. 92

ſtill further north, which forbids us to aſcribe its abſence to cold *. There are ſome cantons of *Switzerland*, the country where it frequently reſides, which it prefers to others: This is particularly the eaſe with the foreſt of *Speſſert*, mentioned by *Friſch*.

Theſe birds ſtrike with ſuch force againſt the trees which they excavate, that their noiſe is heard as far as that of a wood-cutter's hatchet. They ſometimes make a large cavity in the interior part of a tree, which weakens it ſo much, that it falls with the firſt gale of wind. They often occaſion conſiderable damage to the proprietors of woods, in this manner.

This bird often employs the cavity which it has made, for a neſt. This is large and commodious, as may be judged from the large heaps of broken chips, which are ſeen at the foot of the tree which has been thus hollowed out. *Ariſtotle* has aſſerted, that none of the woodpeckers ever alight upon the ground; and it muſt be admitted, that they are ſeldom ſeen there. In winter, birds of this ſpecies regularly diſappear; owing to the ants and inſects penetrating, in theſe colder months, further into the wood, whence they cannot be ſo eaſily dug out.

In both the old and the new continent, there are a great variety of birds that ſeem to have a near affinity with the green woodpecker: With the black ſpecies there is, however, no congenerous bird in the old World. In *Carolina*, there is a ſpecies of black woodpecker, conſiderably larger than our *European* bird. It is named by *Cateſby*, *the largeſt white-billed woodpecker* †. Its bill is ſo large and ſharp, that, in a few hours, it will cut out a large heap of broken chips, for burning; and, from its

* Fauna Suecica, No. 79. † Cateſby's Carolina, Vol. I. p. 16.

dexterity in cutting timber, it has been diſtinguiſhed by the name of *carpenter* *.

The head of this ſpecies is adorned with a large creſt of ſcarlet feathers, which are divided into two tufts, the one hanging down upon the neck, and the other raiſed erect above the head, and of a blackiſh hue.

The Great Spotted Woodpecker †.

THE name of this bird deſcribes pretty nearly its colour, which is black and white, contraſted with red upon the head and belly. It is the laſt of the *European* kinds, and is by far the moſt beautiful; for the black, white, and red, the primitive colour, are not only bright and pure, but finely diverſified. This woodpecker is the moſt alert of this genus. He is better known than ſome of the reſt, as he frequently ventures into orchards, and digs fruit-trees, which are generally more plentifully ſtored with the eggs of inſects, than thoſe of the foreſt. He ſtill, however, retains all the ſhyneſs and ſuſpicion of a criminal: He liſtens, and turns his head different ways, to examines whether there be any danger near. He is moſt commonly ſeen, and is ſometimes taken, at the border of pools in the woods, where he repairs for drink ‡. When he has got to the tree neareſt to the pool where he means to drink, he hops downwards, from branch to branch, till he arrive at the loweſt,

* *Carpenteros* is the Spaniſh name given it.

† L'Epeiche, Buffon. ‡ Buffon, Tome xxii. p. 61.

loweſt, whence he deſcends to the brink of the water. Every time he dips his bill into the water, he liſtens and looks around him. When this bird is ſhot upon a tree, it ſeldom falls to the ground, but clings cloſe to the branch with its claws, unleſs it be abſolutely deprived of life.

GENUS XXI.—*The Jacamar* *.

THIS tribe is connected nearly with the king-fisher on the one hand, and with the woodpecker on the other: In many respects it resembles both. It comprehends only two species. The first is of the size of a lark, and is about six inches long; two of which are comprehended in the tail; and one and an half in the beak. The colour of the feathers is a bright gilded green; the throat is yellow, and the breast brown. This bird is an inhabitant of *Guiana* and *Brasil*, where it frequents the marshy parts of the forests, in quest of insects, its natural food. The second species of *jacamar* is larger than the former. Its plumage is a deep green, with some tints of orange and violet. It inhabits *Surinam*, and is erroneously placed by *Edwards* among the king-fishers †.

* Alcedo Galbula, Lin. Le Jacamar, Buffon.

† Edwards's Hist. of Birds, Vol. I. p. 10.

Plate XVI

KING FISHER

KING FISHERS
OF BOTANY BAY

NUTHACH

CREEPER

HOOPO

Section XII.

Genus XXII.—*The King-fiſher* *.

This bird is of a clumſy ſhape; the head and bill being larger, and the legs ſmaller than the due proportion. But the brilliance of its plumage compenſates for the inelegance of its form †. It is by far the moſt ſhewy of the feathered race to be found in theſe northern regions; and *Buffon* ſuſpects, that it has eſcaped from thoſe climes, where the vertical ſun, and the waves, reflect that pure light, which gives brilliancy to the colours of birds ‡. The upper mandible of the bill is black, and the under yellow. The crown of the head, and the coverts of the wings, are of a deep blackiſh green, ſpotted with bright azure. The whole under ſide of the body is orange-coloured. The tail is ſhort, and conſiſts of twelve feathers, of a rich deep blue. The outmoſt toe adheres to the middle one, as far as the third joint; the inner toe adheres to the ſame, the length of the firſt joint. The elegance, richneſs, and luſtre of the plumage of this bird, which diſplays all the colours of the rainbow, delight the imagination; and, in fact, there is no animal with which the fancy of poets has been more buſy.

The king-fiſher frequents the banks of rivers, and feeds on fiſh. It takes its prey, like the oſprey: By balancing itſelf at a diſtance above the water, and then darting below the ſurface, it brings up the fiſh with its feet.

* Alcedo, Lin. Martin-pêcheur, Buffon.

† Brit. Zool. Vol. I. p. 187. ‡ Tome xxii. p. 171.

feet. From this habit of diving, it is called *piombino*, or *little lead*, by the *Italians*. While it remains ſuſpended in the air, in a bright day, the plumage exhibits the moſt beautiful variety of brilliant and dazzling colours. It makes its neſt in holes on the banks of rivers, dug by the water-rat, and enlarged by its own labour; and lays from ſix to eight eggs, of a beautiful tranſparent white *. The neſt of this bird, far from reſembling thoſe of the halcyons of *Tonquin*, which are reckoned a delicate diſh † by the epicures of that country, and which, in reality, are the neſts of a ſpecies of ſwallow, is not coveted as an article of luxury, becauſe it is remarkably fetid, on account of the remains of fiſh brought to feed the young.

The king-fiſhers begin to reſort to their holes, for the purpoſe of procreation, about the month of March; and the males, at that ſeaſon, are ſeen to court the females with ardour and aſſiduity. The ancients accuſed them of being exceſſively ardent in the buſineſs of procreation; for they believed that the male died in the act of copulation. *Ariſtotle* aſſerts, that the female is fit for fecundation in four months.

This genus is not very numerous, though divided by *Briſſon* into twenty-ſix ſpecies. It is to be found in all quarters of the globe, even as far north as *Siberia*; but it is probable, that it does not always brave the rigour of our winters with impunity. Its mode of diving too, muſt often prove fatal to individuals. Short as its wings are, the king-fiſher has a ſtrong, continued, and rapid flight; and, when it alights, is ſaid to have the power of withering the branch upon which it perches.

The

* Brit. Zool. Vol. I. p. 188. † Buffon, Tome xxii. p. 175. Willoughby.

The body, when dried, is ſuppoſed to preſerve cloth from moth-eating. Thouſands of imaginary virtues have been aſcribed to it by the ſuperſtition of the ancients. It calmed the ſea, and preſerved, where it was kept, the peace of families. It was a ſure protection againſt thunder, and augmented hidden treaſures. Theſe fables have flattered and pleaſed the credulous; but the misfortune is, that they are only fables.

Nor was it the fanciful genius of the ancients alone, that aſcribed wonderful virtues to theſe favourite birds. Similar ſuperſtitious notions are found among the *Tartars* of *Siberia*. There, the ſavages employ their ſkins in all the uſes invented by a moſt credulous ſuperſtition. In ſome places, they tear them off the birds, and throw them into water, carefully preſerving ſuch as ſwim, from the belief, that if with them they touch a woman, or even her clothes, they will immediately fall in love with her. The *Oſtiacs*, a particular tribe, take off the ſkin and claws of theſe birds, and keep them in a ſort of purſe, in the full perſuaſion, that, ſo long as they remain in poſſeſſion of theſe precious charms, they are beyond the reach of every misfortune.

The perſon from whom *Gmelin* learned this ſcheme of obtaining felicity, could not reſtrain his tears in the recital *; for it put him in mind of the loſs of a ſkin which he poſſeſſed, which had been followed with the loſs of his wife and goods.

From *Zinnani* we learn, that, in the mild climate of *Italy*, the king-fiſher breeds twice in the year, on the banks of ſtreams near the ſea. The imagination, always prone to heighten the ſimple beauties of nature, with a

* Gmelin, Voyage to Siberia, Tome ii. p. 112.

ſtrong mixture of the marvellous, has made the neſt a floating one *. One ſtep farther it was neceſſary to go, namely, to ſupply the bird with charms to allay the fury of the ſea, during the period of incubation. Thoſe precious days to ſeamen near the ſolſtice, when the air and waters are tranquil, and when voyages are performed with ſecurity and eaſe, were termed *halcyon* days †; a phraſe now applied to the time of courtſhip or marriage, the ſhort ſeaſons of felicity and bliſs which chequer human life. That this bird might want no accompliſhment, in the power of human imagination to beſtow, the poets have alſo conferred on it the gift of ſong ‡. Thus qualified, it was ſet adrift upon the open ſea in its little floating bark, and ſoothed the rage of that boiſterous element, purely by the harmony of its voice.

* Incubat *halcyone* pendentibus æquore nidis. Ovid. Met. Lib. xi.

† Dies halcyonii appellantur ſeptem ante brumam et ſeptem a bruma. Ariſt. Hiſt. Anim. Lib. V. cap. viii.

‡ Cum ſonat *halcyone* cantu, nidoſque natantes
Immota geſtat ſopitis fluctibus unda.
Silius Ital. Lib. xiv. 275.

Genus XXIII.—*The Nuthatch* *.

M. Buffon has ſix varieties of this tribe, natives of *Europe* and *America*, with two diſtinct ſpecies, excluſively belonging to the latter country. Theſe birds are but rare in *Scotland*. Their *Engliſh* name is apparently derived from their breaking nuts with their bill. They creep up and down upon the trunks of trees, like the woodpecker tribes, and build in the hollow parts of them. If the entrance of the hole be too large, they artfully fill it up, till it admit only their own body; a circumſtance from which the *French* have called them *torche-pots* †. When the neſt is conſtructed, it is uſed for a magazine for winter proviſion, and a retreat during the night.

The edifice of the nuthatch, when thus conſtructed, has hardly any appearance of being the receptacle of birds, to thoſe who view it from without. There, however, upon the duſt of the tree, overlaid with moſs, the female depoſits ſeven eggs, of a dirty white colour, with ſmall red ſpots. There ſhe hatches, with ſo much aſſiduity and attachment, that, rather than abandon them, ſhe will allow the feathers to be torn from her body. If a ſtick is introduced into her apartment, ſhe expreſſes her rage, by hiſſing and blowing, like a ſerpent, without ſtirring from her eggs. So intent is ſhe in diſcharging her maternal duties, that even the calls of hunger do not com-

* Sitta, Lin. La Sitelle Torche-pot, Buffon. † i. e. Potters.

pel her to leave the neſt: She waits till food is brought her by the male, who performs this office of tenderneſs with the greateſt regularity *.

They feed not only upon ants, like the woodpeckers, but alſo upon the kernels of nuts, and almoſt every kind of inſect. It is pleaſing to ſee them bring a nut from their hoard, and place it faſt in a chink, and then ſtanding above it, with their heads downwards, and ſtriking it with all their force, till they break it, when they ſcoop out the kernel †.

The young of this genus commonly make their appearance in the month of May. As ſoon as their education is finiſhed, and they are become independent of parental care, it is ſeldom that the father and mother attempt rearing a new family; they ſeparate from each other, and ſpend the winter in ſolitude. Some naturaliſts impute this ſeparation to the female, and have aſſerted, that her huſband chaſtizes her for her deſertion whenever he finds out the place of her retreat: Hence the proverb, that compares to a nuthatch, the maſter of a family, who maintains his authority over his wife by ſimilar methods. But whatever may be the caſe with jealous huſbands in ſuch circumſtances, it does not appear that this bird has any intention of beating his wife; on the contrary, it would ſeem, that, after their accidental meeting, what appears rough treatment, is only the careſſes of the male, and the lively expreſſion of that tenderneſs which abſence has increaſed ‡.

In the pairing ſeaſon, when it is actuated by love, this bird ſings during the day, but, at other times, it is ſaid to ſing in the night §. Beſides the ordinary noiſe made by

* M. Montbeillard, apud Buffon, Tome xx. p. 467.

† Willoughby's Ornithology, p. 99. ‡ Idem, ubi ſupra.

§ Noctu Cantillat, Syſt. Nat. ed. xiii. p. 177.

by this bird, by beating the bark of trees, it ſometimes puts its bill into the cleft of a branch, and emits a violent ſound, as if it was rending the tree aſunder: This noiſe may be eaſily heard at the diſtance of twelve ſcore yards *.

The nuthatch is thus deſcribed by *Pennant*: The bill is ſtrong and ſtrait, about three quarters of an inch long; the upper mandible black, the lower white. The crown of the head, the back, and coverts of the wings, are of a fine bluiſh grey; the breaſt and belly of a dull orange-colour: The legs are of a pale yellow; the back toe very ſtrong. The length of the bird is nearly ſix inches, and its weight one ounce.

* Britiſh Zoology, Gen. IX. ſpec. i. p. 187.

Genus XXIV.—*The Tody* *.

Browne and *Sloane* are the firſt who have deſcribed this genus †; the latter under the name of the *green ſparrow*. Without entering into their tedious details, this family may eaſily be diſtinguiſhed from every other, by the peculiarity of the beak, which is long, flattened above and below, and blunt at the point.

The tody builds its neſt in little holes, which it digs in dry parts of the ground, and lines with moſs, cotton, and feathers. Its food is ſmall inſects, which it catches while flying, with great addreſs. On this account, the young are extremely difficult to tame; if not fed by the parents till able to provide for themſelves. Birds of this genus are all ſmall in ſize, not exceeding four inches in length. They are diſperſed over the *Weſt India* iſlands, and the tropical climes of *America*. Dr. *Browne* only mentions one ſpecies; but the *French* naturaliſts, *Briſſon* and *Buffon*, have diſcovered one or two more.

The Tody of South America ‡.

This bird is deſcribed by *Sloane* as the *green ſparrow*, or *green humming-bird*. It is no larger than a wren, being

* Todus, Lin. Le Todier, Buffon.

† Vide Brown's Nat. Hiſt. of Jam. p. 476.

‡ Le Todier de l'Amerique Septentrionale, Buffon.

being ſcarcely four inches in length. It is eaſily diſtinguiſhed by its red bill, and the light blue colour of its back. The belly of this ſpecies is white, the throat and ſides a beautiful roſe-colour. The upper parts of the body are green, in the female; in the male, they are blue.

The claws of this bird are long and hooked, for ſcooping out the hole in the ground where it takes up its abode. This ſubterraneous dwelling it renders comfortable, by lining it with ſtraw, moſs, cotton and feathers. The eggs are of a grey colour, with ſpots of a deep yellow; and the young, when excluded, are fed with inſects and ſmall worms. In *St. Domingo*, this ſpecies is known by the name of the *ground paroquet*. There is another ſpecies common in *South America*, called by the natives of *Guiana* the *fictic*, and by Mr. *Edwards* †, *the grey and yellow fly-catcher*. Its ſize is equally ſmall with the former, and its habits are nearly ſimilar. It has been reckoned a diſtinct ſpecies, from the different colour of its plumage; which, on the upper part of the body, is aſh-coloured, with a mixture of deep blue. The lower parts are decorated with yellow, inſtead of the roſe-colour. A third ſpecies of tody, ſtill ſmaller than either of the above, is deſcribed by *Briſſon*: But, as there is nothing peculiar in its manners, we will not enter farther into its hiſtory.

† Vide Gleanings, page 110.

Section XIII.

Genus XXV.—*The Bee-eater* *.

This genus inhabits *Aſia*, *Africa*, *America*, and the ſouthern parts of *Europe*. Its name is derived from the food on which it ſubſiſts. This conſiſts of bees, waſps, and other large inſects; which, like the ſwallow, it catches while they fly. In the iſland of *Candia*, the boys take it by baiting a hook faſtened to a ſtring, with an inſect; which, as ſoon as perceived, it greedily ſwallows, together with the hook, and is thus ſecured like a fiſh in the water. When inſects fail, the bee-eater can ſubſiſt on grain; for the trituration of which, he ſwallows ſmall ſtones, like all other granivorous birds. Bee-eaters, though extremely numerous in *Candia*, are not frequently ſeen in *Greece* or *Italy*. *Willoughby* mentions, indeed, that he ſaw ſome expoſed to ſale in the markets of *Rome*. They are frequently obſerved in the ſouth of *France*, where they are ſeen alighting on the fruit-trees, while in bloſſom, watching the bees and waſps that come to feed upon them †. Though never ſeen in *England*, they go as far north as *Sweden* ‡, and are ſpread in the temperate zone, from *Judea* to *Bengal* §.

The

* Merops Lin. Le Guépier, Buffon. † Buffon, Tome xxi. p. 482.
‡ Lin. Fauna Suecica. § Haſſelquiſt and Edwards.

Plate XVII

The bee-eater, like the bank-ſwallow and king-fiſher, neſtles in the bottom of holes dug with its ſtrong claws; and ſometimes in the ſandy banks of large rivers *, where it frequently digs to the depth of five feet below the ſurface.

Theſe birds are celebrated by *Ariſtotle*, *Pliny*, and *Ælian*, for their parental affection. They allege, that they are no ſooner able to fly, than they conſecrate their labours to the ſervice of their parents, ſupply them with food, and anticipate all their wants. This is merely a fable, which appears to have been often copied. for the ſake of the moral. The head and neck of the common ſpecies are cheſnut, of which the latter always grows brighter as it approaches the back. The upper part of the body is pale yellow, with reflections of green and cheſnut, more or leſs viſible, according to the point from which it is viewed. The lower parts are azure, brightening towards the tail. The bill is quadrangular, a little bent, and ſharp at the point. Of the toes, three are forward, and one backward; and of the three that are forward, the middle one is connected to the reſt as far as the third joint †.

There are ſeven or eight different kinds of theſe birds deſcribed by M. *Buffon*, moſtly inhabitants of foreign countries. Their manners, as far as they are known, are not different from thoſe of the *European* ſpecies. In ſome reſpects, they reſemble the ſwallow tribes; for, like them, they catch their food, while flying through the air. In their variegated colours, and in the formation of their toes, they reſemble the king-fiſher; but their attitudes

* In præcipitiis mollioribus, Ariſtot.

† Pennant's Genera of Birds, page 18.

and manner of flying ſeem to point out a ſtill nearer affinity between them and the goat-ſucker ‡.

Ælian, and ſome copiers after him, have affirmed, that the bee-eater, when flying, makes its progreſs backwards. This, however, ſeems to be an opinion raſhly adopted, from ſome ſingle inſtance inaccurately noticed. No naturaliſt ſeems to have yet examined the manner in which thoſe birds rear their young below ground. It ſeems probable, that a family, when it is grown up, does not ſeparate; but, by uniting itſelf to others, forms thoſe large flocks, that ſkim along the ſkirts of the hills in *Candia*; where the bees and waſps, attracted by the thyme, ſupply abundance of food for both the old bee-eaters and their young.

‡ Montbeillard, apud Buffon.

GENUS XXVI.—*The Hoopoe* *.

THE hoopoe is eaſily diſtinguiſhed by an enormous tuft of feathers, which riſe perpendicularly from the crown of its head, and which it can erect or depreſs at pleaſure. Of this creſt, the longeſt feathers are in the middle; ſo that, when erected, it is of a ſemicircular form, riſing two inches above the head. The creſt feathers are all brown, tipt at the end with black. The back, ſcapulars, and wings, are croſſed with broad bars of white and black. The neck is a pale reddiſh brown. The breaſt and belly are white.

The hoopoes are ſpread over the whole of the ancient continent, from *Sweden*, where they inhabit the large foreſts; and even from *Lapland* and the *Orcades*; to the *Canaries* and the *Cape of Good Hope* †. Throughout the whole of *Europe* they are birds of paſſage, never remaining the whole year, even in the mild climates of *Greece* and *Italy*. They are ſeen among thoſe vaſt crowds of migratory birds that, twice every year, paſs the iſland of *Malta*.

The food of theſe birds, in a ſtate of nature, is commonly inſects, and eſpecially ſuch as are found upon the ſurface of the ground; for they ſeldom perch upon trees, or remain long upon the wing. In *Egypt*, they narrowly watch the retreat of the *Nile*, which leaves a rich

* Upupa, Lin. La Huppe, Promerupe et Promerops, Buffon.

† Vide Montbeillard, the Aſſiſtant of Buffon, Tome xxi. p. 448.

ſlime, which, being warmed with the ſun, ſoon begins to teem with inſects of every denomination. Their fleſh ſmells ſo ſtrongly of muſk, that the cat, which is ſo fond of birds in general, will not taſte it. This bird builds in holes of rotten trees, or of old walls, and lays from two to ſeven eggs. According to ancient fable, *Tereus* was metamorphoſed into this bird *. The ancients believed, that it made its neſt of human excrements, to drive away its enemies from its young; and the people of *Sweden* deem its appearance portentous of war †.

The Creſted Hoopoe ‡.

THE generic name of this tribe ſeems derived from the moſt diſtinguiſhing characteriſtic of the ſpecies; a large globular creſt or hoop. The natural ſtate of this creſt is to ly cloſe upon the hind part of the head and neck, when the bird is flying, or pecking its food, and free from any internal agitation. When tamed, this bird ſhews great attachment to its maſter; but is not eaſily reconciled to the company of ſtrangers. This excluſive attachment becomes even ſo ſtrong, as to efface the deſire of liberty. A tamed hoopoe will not eſcape from its keeper, though left at full liberty to depart. When fully domeſticated, it will eat, indiſcriminately, either bread

* Vertitur in volucrem; cui ſtant in vertice criſtæ:
Prominet immodicum pro longa cuſpide roſtrum:
Nomen Epops volucri.

Ovid. Met. Lib. vi. l. 672.

† Fauna Suecica, edit. xi. ‡ Upupa Criſtata, Linnæus.

bread or raw flesh, and may be held a bird of prey. In the vicinity of *Cairo* and *Rossetto*, there are two species, the one migratory, and the other stationary: And of the former, the individuals, at certain seasons, become fat, and are excellent eating. In *Egypt*, these birds assemble in small flocks; and, when one finds itself deserted by the rest, it recals its lost companions by a little sharp cry. In other places, the hoopoes are so solitary in their manners, that, even when they arrive in the same district together, before they take their departure, they are neighbours who hold no kind of communication with each other.

The young hoopoes are not all excluded from the shell at the same time. Several days, or even weeks, elapse, before the last appear, if we may trust to their appearance in the nest; some being nearly fledged, while the rest are almost bare. The *Italian* naturalists allege, that birds of this species produce several broods in the same season, and that the young disperse as soon as they become independent of their parents. About the end of Summer, these birds leave *Europe*; but, as they are produced at different seasons, they are not all equally prepared for the journey. Many of the young and infirm are forced to remain behind, when they shut themselves up in the holes where they were reared. In a climate unsuitable to their constitution, these pass the winter, in a state approaching to torpor, in which they take but little food, and often die. This has given rise to the opinion, that all the birds of this genus lodge, during winter, in hollow trees, where they remain naked and benumbed, till the approach of Spring *. We have already noticed, that similar accounts had been given of the cuckoo, from probably

* Vide Schwenckfield, Avarium Silesiæ.

probably a like cauſe, and founded on no better grounds.

Theſe birds, it is ſaid, are, among the *Egyptians*, accounted the emblems of filial affection. No ſooner do the father and mother become frail from age, than their young attend them, to nurſe and comfort them. They warm them under their wings; aid them in their painful moulting, by pulling away the old feathers; apply healing herbs to their eyes when tender; and render them all thoſe ſervices, which they themſelves received during their feeble age. Such fables, however agreeable they may be to the pious credulity of the *Egyptians*, are far from being ſo well atteſted, as to merit any credit from the hiſtorian.

The hoopoe is only about the ſize of a thruſh, and weighs from two to four ounces. So large a creſt, added to a creature of ſuch a diminutive ſize, renders this bird one of the moſt fantaſtical of the feathered tribes. The creſt conſiſts of two rows of feathers, equidiſtant from each other. The feathers of the longeſt row, ariſe from the middle of the crown; and hence, when erect, they form a ſemicircle, about two inches and an half in height. The whole of theſe feathers are red, and terminate with a black ſpot. The upper part of the body is grey, with a tinge of brown, varied with tranſverſe waves of dirty white: The wings and tail are black, undulated with bars of white. There are ſome varieties of this bird in *Europe*, and a diſtinct ſpecies in the iſland of *Madagaſcar*, and at the *Cape of Good Hope* *. To theſe, M. *Montbeillard*, the continuator of *Buffon*, has added a ſpecies, which he calls the

* Vide Deſcription du Cap, Tome i. p. 152.

the *promerripe* *, diſtinguiſhed by a long tail, reſembling that of the bird of Paradiſe. M. *Briſſon* has added four different ſpecies of birds to this genus, from *America* and the *Weſt Indies*. Theſe do not, however, ſeem ſtrictly to belong to it, becauſe they all want the large creſt, the moſt ſingular characteriſtic of the *European* hoopoe †.

* Tome xxi. p. 465. † Tome ii. p. 461.

Genus XXVII.—*The Creeper* *.

This genus is ſometimes found in *Britain*, and in moſt other parts of *Europe*. It takes its name from the manner in which it ſpends its life, creeping along the trunks and branches of trees, in ſearch of inſects, their eggs, and *larvæ*. Many ſpecies of the creeper are peculiar to *America* and *Aſia*. *Briſſon* enumerates no leſs than thirty-three different kinds of this ſmall bird; and *Linnæus*, twenty-five. The bill of this genus is very ſlender, and incurvated: The tongue is not ſo long as the bill, but hard, and ſharp at the point. The upper part of the body is variegated with brown, white, and black: The throat and under parts are commonly pure white. Upon each wing is a large white tranſverſe bar.

The creeper, though almoſt continually in motion, never leaves its native country, but remains hopping in the vicinity of the tree, in the heart of which it has its habitation. The female creeper lays early in the Spring; and her brood conſiſts of four or five young.

The fecundity of theſe birds has been greatly magnified by naturaliſts. Some have given them from eighteen to twenty eggs; whereas the female creeper lays only from five to ſeven. The young birds of this family do not obtain thoſe bright and vivid colours, that diſtinguiſh their plumage in advanced years. The luſtre of the plumage

* Certhia Familiaris, Lin. Le Grimpereau, Briſſon.

plumage of almoſt every bird is more faint at firſt, than afterwards. This, however, is more particularly diſcernible among this brilliant tribe, who are not inveſted with the full honours of their race, till they have moulted ſeveral times.

As the creepers live upon the ſame inſects with the woodpecker tribes, and, as they are incapable of driving them from their retreats, by beating the bark with their bills, they turn the labour and ingenuity of the latter to their own account. They follow cloſely in their train, and nimbly ſeize the prey which theſe induſtrious animals had ſtarted for themſelves. The creepers, like all birds that live upon inſects, are found in far greateſt numbers in warm climates, where this ſpecies of food abounds. When they attain their greateſt bulk, the common creepers are ſcarcely larger than the wren; and, like it, they are continually in motion, though they never make a continued flight, nor remove to any great diſtance from their native tree. Their apparent bulk, however, is increaſed by a kind of rough plumage, conſiſting of pretty long feathers, ſtanding almoſt upon their ends.

All that the common creeper does upon the tree, the wall-creeper performs upon the ſides of old buildings. There ſhe lodges, creeps, chaces, and neſtles. This ſpecies is common over *Europe*, but is more numerous in *Italy*, than in any other part of that quarter of the globe *. It is aſh-coloured both above and below. The wings are of a roſe-colour, the large feathers terminating in white. The *ſuimangas*, or creepers of *Madagaſcar*, are the moſt beautiful birds in the world. One cannot help admiring the ſparkling luſtre, and inexhauſtible variety of their fea-

* Gerini's Italian Ornithology, p. 56.

thers, even upon their dried ſkins, which adorn the cabinets of the curious. What a pleaſure would they afford, were they beheld alive, and in all their native beauty, when their ſkins and dried ſkeletons are ſo dazzling *.

Wall-creepers are not ſo numerous as the common creepers. Although ſeen in ſeveral countries on the continent of *Europe*, in *England* they are ſo exceedingly rare, that both *Ray* and *Willoughby* deny them to be natives of that country.

* M. Montbeillard, Tome xx. p. 492.

Section XIV.

Genus XXVIII.—*The Honey-ſucker* *.

Nature, in forming this little animal, appears to have been heſitating in the operation, whether ſhe would fabricate an inſect or a bird. It is the ſmalleſt of all her feathered productions; and of all animated beings, it is perhaps the moſt elegant in form, and brilliant in colour. This little favourite may be regarded as her maſter-piece. Nimbleneſs, rapidity, elegance, and richneſs of dreſs, endowments which ſhe has beſtowed, ſometimes with a ſparing hand, on the other tenants of the air, ſhe has heaped on the honey-ſucker without meaſure. The emerald, the ruby, and the topaz, ſparkle on its apparel, which is never ſoiled by the duſt; for, in its aerial life, it is ſeldom ſeen touching the graſs. It flies from flower to flower, retaining all their freſhneſs and luſtre. It lives upon the nectar exſuding from their leaves; and always reſides in a climate where they are continually renewed by an everlaſting ſpring †.

The honey-ſucker reſides in the intratropical regions of *America*; ſeldom venturing into either temperate zone. It ſeems to advance and retire with the ſun, on either ſide of the line, in purſuit of a continual Spring ‡.

* Trochilus, Lin. L'Oiſeau Mouche, Buffon.

† Buffon, Tome xxi. p. 2. ‡ Laet. Ind. Occid. Lib. v. p. 256.

The *Indians*, ſtruck with the luſtre and fire of its brilliant plumage, have called it the *ſun-beam* *; and the *Spaniards* have named them *tominoes*, from their ſmall weight †. Their tongue reſembles a ſection of a ſilken thread, and their bill has the appearance of a fine needle. Their little eyes appear like ſparks of a diamond, and the feathers of their wings are ſo delicate, that they appear tranſparent.

The feet of this creature are ſo ſmall, that they are ſcarcely perceptible. He uſes them, indeed, but little; for he is continually employed in a humming and rapid flutter, in which the agitations of his wings are ſo quick, that they are altogether inviſible. Like an inconſtant lover, he haſtens from flower to flower, to gratify his deſires, and multiply his enjoyments.

The courage and vivacity of theſe birds are ſurpriſing. They purſue, with a furious audacity, birds twenty times their ſize; faſten themſelves upon their body, and allow themſelves to be carried away by their flight; while they are, in the mean while, pecking them with redoubled ſtrokes of their bill, till their little wrath is appeaſed.

The honey-ſuckers are ſolitary till the pairing ſeaſon, when they engage buſily, two and two, in conſtructing with cotton, and a ſilky ſubſtance collected among flowers, a ſmall neſt, correſponding to the delicacy of their body ‡. It is the female that completes this little cradle for her progeny, while the male charges himſelf with the taſk of bringing the materials, which are ingeniouſly knit into the conſiſtency of a thick and ſoft piece of cloth §. The whole fabric is attached to two leaves, or a ſingle

* Marcgrave, p. 196.
† Acoſta, Lib. iv. cap. 37.
‡ Buffon, Tome xxi. p. 7.
§ Dutertre, Tome ii. p. 262.

a ſingle twig, of the citron or orange tree. It is pleniſhed ſoon with two ſmall white eggs, of the ſize of a pea, which the male and female hatch by turns, for twelve days. After this period, the young make their appearance; but it is impoſſible to ſay with what nouriſhment their mother ſupplies them, unleſs it be with the moiſture which they ſuck from her tongue, while yet humid with the juice of flowers *.

There is no poſſibility of taming birds ſo tender as the honey-ſucker. No food could be had by human induſtry, ſufficiently delicate to ſupply the place of the nectar which they gather in their wild ſtate. Some have been kept alive for a few weeks, by ſyrups; but this nouriſhment, fine as it may ſeem, muſt be groſs, when compared with what is commonly gathered by theſe little flutterers among the flowers. *Buffon* thinks that honey would have proved a better ſubſtitute for their ordinary food.

Together with the luſtre and delicacy of flowers, poſſeſſed by theſe beautiful animals, naturaliſts have ſhewn a deſire alſo to give them their fragrance. Several writers have pretended that they ſmelt of muſk. But this is not the only wonder that human imagination has endeavoured to add to their hiſtory. They have been deſcribed as half flies, half birds; but it is thought that they have derived their original from the former claſs of the animal kingdom. A *Jeſuit* gravely aſſerts, that he had been witneſs to this metamorphoſis of the fly into the bird. They have been alſo ſaid to die with the flowers, and to ſpring with them again; and to paſs the ſtormy ſeaſon, hanging by the bill from the bark of a tree, and in a ſtate

* Dutertre, ubi ſupra.

ſtate of torpor and inaction. Theſe fictions, however, but little ſuit the gravity of ſcience, and have therefore been exploded by the moſt intelligent naturaliſts.

Theſe ſmall birds are neither ſhy nor ſuſpicious: They allow themſelves to be approached within five or ſix ſteps, and thus fall an eaſy prey to the artifice of the *Indians*, who catch them by a twig covered with a glutinous ſubſtance, applied while they are fluttering before a flower. When taken, they immediately expire *; and after their death, they are worn as ear-rings by the young *Indian* ladies. The *Peruvians* had the art of compoſing paintings of their feathers, which were greatly admired †. There are twenty-four diſtinct ſpecies of the honey-ſucker deſcribed by M. *de Buffon*; the ſmalleſt, abſtracting the bill and the tail, is not above an inch in length.

The Smalleſt Humming-bird ‡.

This ſpecies is leſs than ſome of our larger flies. The head, and whole upper part of the body are of gilded green, with reflections of red, according to the different lights in which they are beheld. All the lower parts are of a whitiſh grey. The feathers of the wing are of a grey, bordering upon white. The bill and claws are of a black colour, but covered a conſiderable way down with ſmall detached hairs, or down. The male is larger than his female, and generally his plumage is of a brighter hue. This ſmall ſpecies is found in *Braſil*, and in ſome of the *Weſt India* iſlands.

* Victitat floribus ſolum; ideo capta, viva deteneri non poteſt, ſed moritur. Marcgrave.

† Vide Gemelli Carreri. ‡ Le Plus Petit Oiſeau Mouche, Buffon.

CHAPTER IV.

SECTION I.

ORDER III.—*Gallinaceous Birds.*

THE great diviſions of the feathered race, as laid down by ornithologiſts, are ſufficiently fanciful and arbitrary. No characters can be ſelected ſo general as will apply to the whole of thoſe birds, which we find claſſed by them in one order. What ſimilarity, for example, is there between the ſize and figure of the raven, and thoſe of the humming-bird; which, as we have ſeen, are both comprehended in the order of pies? What analogy can be diſcovered between the voracious habits of the one, and the delicate appetite of the latter? None ſurely; yet it has ſeemed good to the ſyſtem makers, in the plenitude of their power, to claſs them together. We ſhall now paſs from this ill-aſſorted group, to another order, that is more ſubſervient to the wants of man.

The rapacious birds are naturally warlike and deſtructive. When tamed, a few of them claim importance, from their ſubſervieney to our pleaſures in the field; but they are otherwiſe of no immediate utility to man. The ſmaller birds ſerve to enliven his ſolitary retreats, by the harmony of their ſong; and, when reduced to a ſtate of captivity, ſupply amuſement to the idle. It is from the poultry tribes alone that he derives any ſolid

advantages,

advantages, or conſiderable acceſſion to the neceſſaries of life.

Birds of this claſs are diſtinguiſhed by the comparative ſmallneſs of the head; by their heavy and muſcular bodies; and the whiteneſs and ſalubrity of their fleſh. Their bills are ſhort, ſtrong, and arched; the upper mandible ſhutting over the edges of the lower, and thus fitted for picking up grain, which is their principal nouriſhment. Their legs are ſtrong and ſhort; their toes furniſhed with broad claws, for ſcratching the ground. There are few of them qualified for long flights, or migrating from one country to another, on account of the ſhortneſs of their wings.

The variety of food upon which they are capable of ſubſiſting renders them, in general, proper for domeſtication; and their great fertility, for which they are remarkable, when abundantly ſupplied with food, enables man to convert them into a kind of machines, by which he adds conſiderably to the ſtock of his proviſions. They correſpond, among the feathered race, to the graminivorous cattle among quadrupeds. Like them, they are indolent, gregarious, and voluptuous: When made priſoners, they forget equally their former companions, and the pleaſures of freedom. Satisfied with the ſingle enjoyment of eating, they grow tame, contented, and fat in their confinement; and are peculiarly fitted for the purpoſes for which they are deſtined by their owners *.

The gallinaceous birds, though not reſtricted to any one ſpecies of food, are in general granivorous; and, for the trituration and digeſtion of this ſpecies of food, nature has made a very ingenious proviſion, by the particular

* Goldſmith's Nat. Hiſt.

cular ſtructure of their inteſtines. They have three ſtomachs; firſt, the crop, or pouch, where the grain is moiſtened or ſoftened, as a preparation for the proceſs that is to follow. From this crop, the grain paſſes to an intermediate veſſel, furniſhed with a number of glands, for the ſecretion of a kind of juice, that ſtill farther mollifies the contents, before they paſs into the third ſtomach, or gizzard. Here the grand operation of digeſtion is completely finiſhed. This organ is compoſed of a hard horny ſubſtance, and its ſides are capable of contracting themſelves, and of rubbing the contained food with great force, by means of ſtrong muſcles with which it is ſupplied. No ſort of grain, nor even the hardeſt ſubſtances, can reſiſt the action of the gizzard of a fowl. Glaſs and iron are gradually worn down by it, and digeſted, as has been fully aſcertained by many experiments. That this effect is the reſult of muſcular action, and not of any fluid acting as a ſolvent, has alſo been fully eſtabliſhed. Small tubes of iron, open at each end, previouſly filled with a few grains of barley, have been introduced into the gizzard of fowls: And, at the end of two days, when theſe tubes were taken out, they were conſiderably diminiſhed in their weight, by the violent trituration of the ſtomach; while the grains of barley, which they contained, remained entire, and were only ſwolen with the moiſture, in the ſame manner that they would have been, had they been expoſed to the ſame humidity in any other place. Had the proceſs of digeſtion, therefore, in the ſtomach of the fowl, been carried on by a ſolvent, the grain muſt have been completely digeſted in that time. It appears, then, that, in the whole order of gallinaceous birds, digeſtion is performed by muſcular action, and not by means of any acrid gaſtric liquor, as we know is the caſe among all rapacious animals, that devour fleſh.

Genus XXIX.—*The Cock* *.

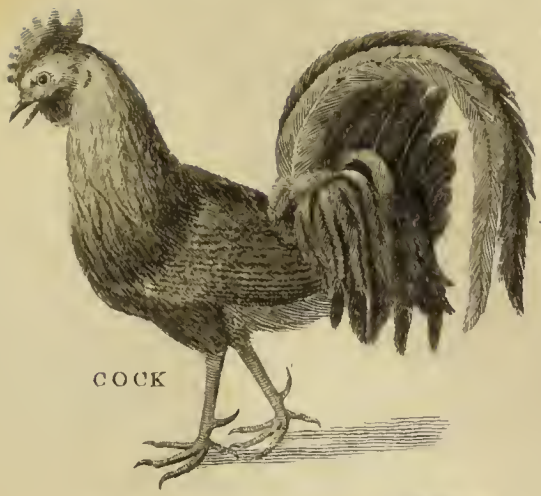
This genus is ſo well known, that all deſcription of it would be ſuperfluous. It is found, in a domeſtic ſtate, in almoſt every part of the habitable globe. The common poultry being the oldeſt companions of man, and longeſt in a ſtate of captivity, their manners, and even their external appearance, are more changed, than thoſe of any other birds. *Briſſon* enumerates ſix ſpecies, and ſeveral varieties of the cock and hen; *Buffon*, not fewer than nineteen. Indeed, there are hardly two individuals of this claſs, that exactly reſemble each other; ſo powerfully do climate, food, and domeſtication, operate upon all animals. The tail, which, in our common cock, forms the moſt diſtinguiſhing ornament, is in ſome ſpecies, particularly thoſe of *Virginia*, altogether wanting. Inſtead of the long, ſmooth, and gilded feathers, which adorn the neck and back of one ſpecies, there are ſome which are covered with a rough and briſtly coat, of which all the feathers point forward. Some have five toes; others, like the *Bantam* cock, have ſhort legs, covered with feathers to the feet †; while ſome are clothed with hair.

Theſe circumſtances ſeem to render the claſſification of the cock a difficult taſk. His hooked bill, and his capacity of devouring fleſh and worms, would entitle him to

* Le Coq et la Poule, Briſſon. Phaſianus, Lin.

† Le Coq de Bantam, Briſſon, Vol. I. p. 172.

Plate XVIII



COCK

HEN

TURKEY

to a place among the rapacious birds; while the ſtructure of his inteſtines, eaſily points out his affinity to the granivorous tribes. The cock affords a freſh inſtance of the futility of all attempts to reduce the inexhauſtible variety of nature, within the narrow limits of a ſyſtem; or to encloſe the whole of her numerous family of birds in a ſort of ſcientific net, from which, in ſpite of all endeavours, there will always be many that will eſcape. The lively and manly genius of *Buffon* was, by theſe circumſtances, prompted to trample upon ſyſtems, which he conſidered as ſpeculations fit only for weak and narrow minds, that were incapable of treading in the grand paths of nature, or of forming any intimate acquaintance with her operations *.

A good cock is characterized by the fire and vivacity of his eyes; by a ſtately and majeſtic walk; by the freedom of his movements; and by all thoſe proportions which imply ſtrength and activity. There is none of the feathered race, and perhaps no animal of the ſame ſize, that dares encounter him. His dignified courage is well deſcribed by our *Britiſh* poets.

We have already had occaſion to remark, that the voice of birds ſeems intimately connected with their organs of generation. Courage, in the ſame manner, ſeems to depend on the ſtrength of the ſexual paſſion; at leaſt, that quality is ſeldom deficient in animals, that are diſtinguiſhed either by the power or deſire of copulation. In the cock, the impetuoſity of the paſſion is as violent, as the returns of his wants are frequent. The ſtrength of his amorous inſtinct ſeems even to control the call of hunger. When he ſallies forth from the poultry-yard

* Buffon, Tome xvii. p. 65.

in the morning, the firſt uſe that he makes of his liberty is to pay his addreſſes to the hens. The firſt that he meets, even though of a different ſpecies, is made ſubſervient to his uncontrolable appetite *. When confined, even with the males of his own ſpecies, he lays aſide his ferocity, and deviſes means of indulging a paſſion that ſeems "to overſtep the modeſty of nature."

When left at full liberty with his concubines, he cannot endure the appearance, much leſs the rivalſhip of any of his own ſex. No ſooner does another cock make his appearance in the yard, than a bloody engagement enſues, that nothing, but the death or defeat of one of the combatants, can terminate. Ever after, the vanquiſhed party, without ever again attempting to retrieve his diſgrace, relinquiſhes the field, or ſkulks about in ſome concealed corner, with a ſmall detachment of females that ſtill adhere to him. Thus, the government eſtabliſhed over his kind by the cock, is tyrannical and deſpotic beyond all example. The ſituation of a *Vizir*, of a *Pacha*, or of a *Dey*, under the *Grand Signior*, may be termed liberty, when compared to the abject ſubmiſſion to which this jealous and ferocious animal reduces his fellow creatures over whom he has acquired power.

The ancients had a method of improving their poultry, as they ſuppoſed, by croſſing the breed. *Columella* aſſerts, that the beſt fowls were obtained by an union of the common hen, with a cock of a foreign race †. The pheaſant and common poultry were alſo ſometimes united; but theſe expedients ſeem rather contrived to pervert, than to improve nature. Our farmers, who beſt underſtand the management of poultry, make no ſuch attempts. They are ſaid, however, in ſome places, to give

* Ariſt. Hiſt. Animal. Lib. ix. † De Re Ruſtica, Lib. viii. cap. 2.

give a preference to black hens, on account of their ſuperior fecundity, as well as their more frequently eſcaping the obſervation of the rapacious birds, that plunder the poultry-yard.

Our common poultry came originally from *Perſia*. *Ariſtophanes* calls the cock the *Perſian bird* *. The period, in which they were tranſported from that kingdom to the weſtern parts of *Europe*, is ſo remote, that it is beyond the reach of all authentic hiſtory. We know, from the ſacred records, that they were common, in a domeſtic ſtate, in *Judaea*. *Caeſar* † mentions them in *Britain*, at a ſtill earlier period, among the articles of food, which the rude natives were prohibited from eating, by the ſavage inſtitutions of the *Druids*. But, though poultry were early ſpread, from *China*, over the whole of the ancient continent, as far as the *Cape Verd* iſlands, and even *Iceland*, there is reaſon to believe, that they were unknown in *America*, till its conqueſt by the *Europeans*. They were, thirty years, introduced into *Peru*, before they became accuſtomed to breed there ‡; and it is aſſerted, that, for ſome time after they were introduced into *Braſil* by the *Spaniards*, the *Indians* were ſo little acquainted with them, that they deemed their eggs impure and poiſonous §.

The male and female of this ſpecies are extremely different in their outward appearance. The comb, wattles, neck, tail, and ſpurs, all ſufficiently characterize the cock. The hen has leſs brilliancy of colour, and, in her manners, leſs gravity, fierceneſs, and pride. There are ſome hens, indeed, whoſe ſex ſeems ambiguous; who have ſpurs upon their legs, and a comb upon their head, reſembling

* Aves, Lin. 483. † Cæſar's Comment. Lib. vi.

‡ Hiſtory of the Incas, Vol. II. p. 239. § Buffon, Tome xvii. p. 113.

bling thoſe of the cock; and who endeavour, according to *Ariſtotle* *, to imitate him in things ſtill more eſſential. Theſe may be regarded as hermaphrodites, without ſex, and depraved even in the common and eſſential organs of the ſpecies, ſince they are incapable of perpetuating it. The hen is, in general, more ſlender in all her proportions, than the cock; her legs are ſhorter; but her apparent bulk is increaſed by a larger quantity of feathers.

The cock and hen, that are ſo perfectly familiar to us in their domeſtic ſtate, are ſo ſeldom found in their natural freedom, that mankind ſeemed to have forgotten their manners and form in that condition. In *Perſia*, their native country, they are not found wild; and, had they not been ſeen by ſome travellers ſince the advancement of commerce and navigation, their primitive appearance, like that of the ſheep, would have been unknown. In the kingdom of *Congo*, the iſland of *Tinian*, and the *Philippines*, the poultry are ſtill found in their ancient ſtate of independence. There, the plumage of the cock is black and yellow; his comb and wattles are yellow and purple. There are ſome found in the *Indian* woods, that have this farther peculiarity, that their bones, when boiled, are as black as ebony †; a circumſtance which ariſes, probably, from ſome particular food which may communicate that tincture, as madder, with us, is known to die them red.

The common hen is, perhaps, the moſt fertile of all birds. Excepting the ſpace of about two months in the moulting ſeaſon, ſhe frequently lays an egg every day, eſpecially if

* Ariſt. Hiſtor. Anim. Lib. ix. cap. 49.

† Vide Briſſon, article le Coq & la Poule negre de Mozambic, Tome I. p. 174.

if kept ſufficiently warm, and well fed. When in her wild ſtate, ſhe generally begins to hatch after laying fifteen or ſixteen; and it is only from the circumſtance of abſtracting her eggs, that ſhe produces a greater number when tame. Many other birds are capable of making a ſimilar effort, to regain the uſual number of their eggs, when by any accident theſe have been deſtroyed. Although of all mothers the moſt careful of her offspring, the hen is not capable of rearing much above a dozen of chicks. The ſize of her body will not communicate heat to a greater number of eggs, nor afford ſufficient ſhelter and warmth to a more numerous brood, when hatched. To remedy this defect, and avail themſelves more completely of her fertility, many contrivances have been ſuggeſted by the ingenious. It has been found, that any kind of heat may be ſubſtituted for that created by the body of the hen: Hence the invention of ſtoves, by which, not only the whole produce of the hen, but ſeveral thouſands of eggs, may be hatched at once. In the warm climate of *Egypt*, where the young need no ſhelter or clucking after they are excluded from the ſhell, immenſe numbers can be reared in this manner; and the ſcheme, we are told, is there put in practice. In our colder, and more variable climate, the young may indeed, without much difficulty, be hatched; but, without the warmth and ſhelter of the mother, they muſt immediately periſh, when excluded. To remedy this, an ingenious *French* naturaliſt has ſuggeſted the uſe of a woollen hen, or falſe mother *; which is nothing more than applying over them a warm canopy of thick woollen cloth.

But

* Vide l'art de faire éclorre les Poulets, par M. de Reaumur.

But a much more natural and advantageous ſubſtitute for the care of the mother, has been found, in training the capon to cluck young; an office, which he ſoon learns to perform with affection and aſſiduity; and, from the greater ſize of his body, with more ſucceſs than the hen herſelf. All that is neceſſary for this purpoſe, is, to confine him for ſome time in a dark coop, bringing him out to feed, at ſtated times, with a number of chickens already conſiderably advanced. By degrees, he will thus become fond of their ſociety, and will allow them regularly to enjoy the ſhelter and warmth of his body. The hen, thus relieved of her charge, will again ſoon reſume the buſineſs of laying, and preparing a ſecond family; and the capon, condemned to ſterility, will ſtill contribute, although indirectly, to the multiplication of his ſpecies.

The extraordinary courage of the cock is univerſally known in almoſt every country, which has been already noticed. The cuſtom of making them fight, and of turning into an amuſement the invincible hatred, which nature has planted in the individuals of this ſpecies againſt each other, is a practice very ancient. The innate ferocity of theſe animals has been cultivated and increaſed with ſo much art, that the combats of the poultry yard have been deemed an intereſting ſpectacle, even among poliſhed nations. The *Athenians* and *Rhodians*† were anciently much addicted to this irrational and barbarous amuſement. Among the former, a particular day was annually conſecrated to the amuſement of cock-fighting. *Ælian* gives the following account of the origin of that cuſtom. When *Themiſtocles* took the field to engage the *Perſians*,

* Buffon, Hiſt. Nat. du Coq, Tome xvii.

† Pliny, Lib. x. cap. 21.

Perſians, he obſerved a timidity among his ſoldiers; and, among the various topics, to which he had recourſe to animate them, he mentioned the invincible courage of the cock *. Obſerve, ſaid he, with what intrepid valour he fights, while he has no other motive but victory: Whereas you are to contend for your religion and your liberty, for your wives and children, and for the tombs of your anceſtors. This harrangue, which, to a modern army, would, I am afraid, appear ludicrous, inſpired ſuch courage into the *Athenian* ſoldiers, that they obtained a victory, the moſt memorable which hiſtory records. It was in commemoration of this celebrated event, that the *Athenians* inſtituted the annual games of cock-fighting.

The *Rhodians* were ſtill more addicted to this practice. Their cocks were larger, ſtronger, and much more ferocious in battle, than the common kind; while the ſexual paſſion was leſs frequent, and leſs ardent; and their hens, it is ſaid, were alſo much leſs prolific. This ſeeming contrariety to the common laws of nature, probably aroſe from their education. Being continually accuſtomed to ferocity and rage, the ſofter paſſion was choked or weakened, although it was the original ſource of their courage, and the foundation of their warlike habits.

At preſent, cock-fighting is keenly purſued in *China* †, in the *Philippine* iſles, in *Java*, and in the iſthmus of *Darien*. In *Europe*, the paſſion for this amuſement has long been on the decline: Still, however, there are even there many countries in which it is run after with avidity; where the ſpectators intereſt themſelves ſo deeply in the iſſue of the battle, that, in the language of *Buffon*, the fate of families is

* Ælian, de Varia Hiſtoria, Lib. xi.

† Navarete Diſcription de la Chine, p. 40.

often determined by the laſt ſtroke of the victorious bird. If the ancient *Romans* were trained to ferocity, by the bloody ſpectacles, exhibited in the *Campus Martius*, by the *gladiators*, we ſhould imagine that the practice of cock-fighting would be ſtill more pernicious to the morals of nations, by adding habits of gambling to thoſe of cruelty.

The cock is the moſt ſalacious of all birds. His jealouſy and courage ſeem to be the reſult of his ſalacity. One cock ſuffices for a dozen or fifteen hens: But, although ſurrounded by a numerous train of females, his jealouſy is always in proportion to the force of his ſexual appetite. In the midſt of his ſeraglio, and placed beyond all apprehenſion of want, his dread of ſharing his enjoyments, ſtill remains unimpaired: But his jealouſy is more excuſable, and better founded, than that of other Sultans, in proportion as his powers are ſuperior *. The common poultry, which we continually employ in propagating their kind, probably ſoon exhauſt the principles of life; and, therefore, in their domeſtic ſtate, are not long-lived. As it is by mere accident, however, that any of them are allowed to reach the period aſſigned them by nature, and to die of old age, we are not, therefore, able to aſcertain exactly their longevity. *Buffon* ſuppoſes, that, in their domeſtic ſtate, they might live twenty years, and, in their natural freedom, perhaps ten more.

In proportion as they are removed from their native country, and are habituated to different food and climate, all the poultry tribes undergo a change in their external appearance, and even in their ſize. From this cauſe ariſe all

* Buffon, Tome xvii. page 70.

all the endleſs varieties which naturaliſts deſcribe under this genus. There are cocks and hens to be found of every colour, and of every ſize, from that of our largeſt poultry to that of a pigeon. Theſe varieties are ſtill farther increaſed by pairing together particular kinds, in order to produce ſome new and ſingular offspring. It is aſſerted, that, in *Virginia*, a ſpecies is found altogether wanting the rump and the tail, and that the common cocks, when imported from *Europe* into that country, gradually loſe this moſt conſpicuous ornament. Some kinds are found, with their feathers all bending forwards to the head; in others, the vanes of the feathers, like hair, are all ſeparate, and unconnected with each other. Some alſo have large tufts of feathers upon the head, or are rough upon the legs; while others, in theſe parts, are either ſmooth or naked. But it is not our purpoſe to particularize theſe varieties.

Section II.

Genus XXX.—*The Turkey* *.

M. *Buffon* argues, and with great appearance of evidence, that this genus is originally derived from *America*. Indeed, the vaſt numbers which peopled the foreſts of that continent, when it was firſt diſcovered, afford a ſtrong preſumption in favour of this opinion. *Dutertre* obſerves, that they were then in prodigious numbers in the *Weſt Indies*, where, without any care, they produced three broods every year; a ſtrong proof of their being in their native country, where all animals are moſt thriving and prolific †. Among the *Illinois*, the *Jeſuits* affirm, that they were ſeen in flocks of two hundred, and of ſuch a large ſize, that they weighed from thirty ‡ to forty pounds. It is farther remarkable, that, in *America*, the turkies ſwarm every where in their wild ſtate; preſerving, however, a ſufficient diſtance from the ſettlements of the *European* coloniſts, who have begun to occupy that country.

To this evidence, reſulting from the abundance of theſe birds in *America*, we may add that of all thoſe travellers who have viſited *Aſia*, who unanimouſly agree, that they are

* Meleagris, Lin. Le Dindon, Buffon.

† Hiſtoire Generale des Antilles, Tome ii. 266.

‡ Lettres Edifiantes, page 237.

are very rare upon that continent. *Chardin* and *Travernier*, who have travelled over all the Eaſt, poſitively aſſert, that there is none of them in that vaſt country, except thoſe that have been imported by *Europeans*; and that, where they have been introduced by ſtrangers, they have ſeldom thriven. This is nearly the ſtate of the caſe with regard to the turkies, that are found on different parts of the *African* coaſt. They were firſt imported thither, along with the common poultry, by the *Portugueſe*; and have ſince been reared by the other nations, who have made ſettlements on that continent *.

No ancient writer, nor any naturaliſt of modern times, has mentioned turkies, till after the diſcovery of *America*; a circumſtance, from which we may fairly infer, that, till that great event, theſe birds were unknown in every other part of the world. Into *England* they were not introduced till the reign of *Henry* VIII. †; a period, which correſponds exactly with that, in which they might be ſuppoſed to be imported, by ſome of the firſt adventurers, from the new world. The turkey, therefor, is a native of *America*; and, being a bird of heavy flight, it is probable, that, without the aſſiſtance of man, it could never have made its way into any part of the ancient continent.

The turkey has been ſuppoſed a baſtard progeny, from the peacock and common poultry, from the name *gallo pavo*, that was originally given it when introduced into *Europe*. This opinion is altogether overthrown, if it be admitted, that its origin has been in *America*; for thither the common cock never made his way, till conveyed by

* Vide Buffon, Tome xvii. p. 151. † Brit. Zool. p. 87.

by the *Europeans*. The peacock alſo being of *Perſian* extraction, could not, otherwiſe, have found his way thither.

The turkey, in its wild ſtate, is characterized by the ſame ſtupidity, that attends it in captivity. The wild ones are about twice the ſize of our domeſtic turkey; and their fleſh is ſaid to be harder and tougher. As this bird has been, a much ſhorter period, in domeſtication, ſo its varieties are greatly fewer. The tufted kind ſeems only a variety of the common turkey, with hardly any peculiarity, excepting the large creſt of feathers above the head.

This genus has been domeſticated almoſt as univerſally as the common poultry, ſince the diſcovery of *America*; but, before that period, it was altogether unknown in the old world. The turkey was firſt introduced into *Britain* and *France* about the year 1521, immediately after the conqueſt of *Mexico* by *Cortes*. *Ælian* * mentions a bird found in *India*, that ſome writers have ſuppoſed to be the turkey; but thoſe, who are acquainted with that country, univerſally agree, that this genus is no where found wild, in that part of the world. The diſtinguiſhing characteriſtics of this genus, are, the naked and tuberous fleſh which covers the head, and part of the neck; and a long fleſhy appendage which hangs from the baſe of the upper mandible, and which is capable of great diſtention, when the bird is under any agitation. There are ſeveral varieties of the turkey, which are probably conſtantly increaſing in number by domeſtication. In their wild ſtate, turkies are much larger, more hardy, and beautiful, than in captivity. The turkey, which, with us is ſo tender when young, multiplies abundantly in

* Æliani Hiſt. Anim. Lib. xvi. cap. 2.

in the large foreſts of *Canada*, which, a great part of the year, are covered with ſnow. There, it is generally of a dark grey colour, and its feathers are elegantly bordered at the edges with a bright yellow. In almoſt every part of *America* and the *Weſt Indies*, turkies are found wild, and in ſuch abundance, that they conſtitute a great part of the food of the natives, although never reduced by them into a ſtate of domeſtication. Their feathers are woven into cloaks, fans, and umbrellas: But the improvident ſavages never think of taking into keeping, a bird, from which they might be ſupplied with plenty on every emergency. They ſeem to take a delight in precarious poſſeſſion: And, as a great part of the pleaſure of the chace lies in the uncertainty of the purſuit, they are unwilling to abridge thoſe labours, which they deem equally honourable and delightful *. Hunting the turkey is, therefore, one of the principal amuſements of the ſavage; as its fleſh conſtitutes often the chief ſupport of his family. The manner in which he hunts it, is this. He is ſupplied with a faithful rough dog, ſuppoſed to be the wolf domeſticated; and, when, by the aſſiſtance of this guide, he diſcovers a flock, the dog is immediately diſpatched in purſuit. At firſt, the turkies, merely by running, far outſtrip the dog; who nevertheleſs continues the purſuit, knowing from experience, that they are incapable of running, for any length of time, at full ſpeed. Accordingly, he ſoon overtakes them, when, already exhauſted with fatigue, they take the trees for ſhelter. There they perch, incapable of flying farther, till they are, one after another, knocked down with a ſtick. Such is their ſtupidity, that, when an *European* comes

* Goldſmith's Nat. Hiſt. Vol. v. p. 179.

comes upon a flock of them in the woods, and kills one by discharging his piece, the rest seldom take their flight, till a great number be destroyed.

The turkey is not so fertile, or so powerfully influenced by the sexual passion, as the common cock: He has, accordingly, less courage, and less jealousy. Four or five females are sufficient for one male. If more be placed together, they will indeed fight; but not with the same violence or effect, as the common cock, who has often been observed to attack the turkey, though twice his size, and to put an end to his life *. Nor are subjects of quarrel wanting to incense these different species against each other: For it is asserted, that the turkey cock, when deprived of his females, will apply to the common hens.

* Sperling, Zoologia Physica, p. 367.

GENUS XXX.—*The Pintada, or Guinea-hen* *.

THERE is only one ſpecies of this bird; that with the white breaſt in *Jamaica*, being only a variety. Its characteriſtics are, a ſtrong, ſhort, and convex bill, covered at the baſe with a carunculated cere, in which the noſtrils are lodged; a large caſque of horn upon the head; long pointed wattles, hanging from the cheeks, and a few ſmall briſtles over the head and neck. The plumage of the pintada, without any richneſs or brilliancy of colour, is ſufficiently remarkable. The ground is a bluiſh grey, more or leſs deep, regularly interſperſed with ſmall round ſpots of white. Its back is rounded, and the tail turned downwards, like that of the partridge. The *Guinea* hen is a noiſy, reſtleſs, and turbulent bird; continually removing from place to place; and domineering over the whole poultry yard. The turkies, though twice its ſize, are in continual apprehenſion from its petulance. So quick are its motions, that theſe large and unwieldy birds may receive twenty ſtrokes of its beak, before they be in a poſture of defence. It ſeems to have the ſame manner of fighting, that *Salluſt* aſcribes to the *Numidian* cavalry. Their charge was briſk, but irregular: Reſiſtance made them turn their backs; but, in a moment, they wheeled

* Meleagris Numida, Lin. La Pintade, Buffon.

about, and fell again upon the enemy *. This genus ſeems, in many reſpects, to reſemble the common poultry. Like them, it ſcratches the ground, and goes in large flocks, feeding its young, and pointing out their food. In the *Cape Verd* iſlands, ſeveral hundreds are ſometimes ſeen together, where the inhabitants purſue them with dogs; and, as their flight is heavy, whenever they are run down, they eaſily kill them with poles †. The male and female ſo nearly reſemble each other, that they can hardly be diſtinguiſhed: The only difference is, that the wattles, which are blue in the former, are inclining to red in the latter.

Pintadas were originally from *Africa*, and were known to the ancients by the name of *Numidian hens* ‡. They are named at preſent, in different countries of *Europe*, from that diſtrict of *Africa* from which they are brought. They are more frequently domeſticated in thoſe countries that border on the *Mediterranean*, than with us; and into theſe were, probably, more early introduced, from their vicinity to *Africa*, throughout which they have been long univerſally ſpread. In our northern climate, they are neither fertile, nor eaſily reared; and are rather kept for ſhew, than for uſe. It appears from *Edwards*, that they were very rare in *England*, before the commencement of the preſent century.

The pintada was known to the ancients at a very early period, and is mentioned by *Ariſtotle* under the name

* Lettres Edifiantes, xx. Recueil.

† Dampier, Nouveau Voyage, autour du Monde, Tom. iv. p. 23.

‡ Gallinæ Numidiæ. Vide Pennant's Zoology, Vol. i. p. 212.

name of *meleagris* §, in his Hiſtory of Animals. *Varro* *, *Pliny* †, and *Columella*, afterwards deſcribed this bird, of which there were then diſcovered two ſpecies, as they ſuppoſed; one with red caruncles, and the other with blue. It has ſince, however, been aſcertained, that this difference of colour characterizes the male and female of the ſame ſpecies.

At *Rome*, this was reckoned a rare bird, and reared with great care. It ſeems to have afterwards become entirely extinct in *Europe*, upon the downfal of the Weſtern empire; for there is no mention made of it by any writer during the dark ages, till the *Europeans* began afterwards to frequent the coaſts of *Africa* in their paſſage to *India*. From that time, it has again not only been ſpread over *Europe*, but tranſported into *America*, where varieties of climate and food, have produced ſuch alterations in its external form, that naturaliſts have miſtaken it for a new ſpecies ‡. M. *Briſſon* regards, as a diſtinct race, the white breaſted pintada of *Jamaica*; and *Marcgrave*, with more juſtice, makes a different ſpecies, thoſe hooped birds that are ſeen at *Sierra Leona*, which have a membraneous collar, of a bluiſh colour, around their necks ||.

The pintada is nearly of the ſame degree of fertility as the common hen; but, in this reſpect, varies much, according to climate, being very ſenſible of cold. In the iſle of *France*, where theſe birds are wild, they lay from eight to twelve eggs; whereas thoſe of *St. Domingo*, in a domeſtic ſtate, lay from an hundred to an hundred

§ Hiſtoria Animalium, Lib. vi. cap. 2.

* Varro, de re Ruſtica, Lib. iii. cap. 9.

† Plinii Nat. Hiſt. Lib. x. cap. 26.

‡ Buffon, Tome xvii. p. 165. || Hiſtoria Nat. Braſil, p. 192.

and fifty. They are very difficult to rear in northern countries; but their flesh is a very delicate food. A baſtard race has been produced between theſe birds and the common poultry, that is incapable of reproduction.

Genus XXXI.—*The Curaſſo* *.

All the birds comprehended under this genus, belong to the warmer climes of *South America*. *Buffon* enumerates eight different ſpecies: But of theſe, however, ſome are ſo little known, that he confeſſes himſelf at a loſs how to arrange them. He preſerves the barbarous names, that they have obtained in the jargon of the *Indians* †. *Briſſon* claſſes the curaſſo in the ſame genus with the pheaſant, and has ſix ſpecies ‡. The characteriſtics of this bird are, a ſtrong, thick, and convex bill, covered at the baſe with a cere, in which the noſtrils are lodged; a head moſt commonly adorned with a creſt of feathers curling forwards; a tail large and ſtrait. The curaſſo is about the ſize of a turkey; and the prevailing colour of its plumage is black, with ſometimes a mixture of ſmall white ſpots over the head and neck. The reſt of the body, in ſome individuals, partakes of a ſhade of green, and in others, of a deep cheſnut-colour.

Some naturaliſts have claſſed the curaſſo with the turkey. It is, however, ſufficiently diſtinguiſhed from that genus by the moveable creſt, which it wears upon its head, and which it can erect and depreſs at pleaſure. It is no leſs diſtinguiſhable from the pheaſant, by the tameneſs and familiarity of its nature. Far from the ſhyneſs or timidity

* Orax, Lin. Le Hocco, Buffon. † Buffon, Tome ii. p. 373.
‡ Tome i. p. 296.

timidity of that bird, the curaſſo is ſo little apprehenſive of danger, that it ſeems hardly intereſted in its own preſervation. It is quiet and unſuſpicious, even to ſtupidity. A flock of them has been frequently known to ſit, till nine were ſhot with the ſame fowling-piece. When tamed, theſe birds grow ſo familiar, that they will knock at the door with their bills, till it be opened; and pull the clothes of the domeſtics, when they forget to pay them attention. They follow their owner every where, diſcovering impatience when hindered from attending him, and the moſt lively pleaſure at his return *. Nothing can be more remote from the manners of the pheaſants, which are ſo ſhy and ſuſpicious, that it is almoſt impoſſible to tame them.

The *Mexican* name of the curaſſo, is, *the bird of the mountain*, from its reſidence, which is generally in the hilly parts of the country. During the night, it perches upon trees; its gait is ſtately and majeſtic, but its flight aukward and heavy. Fruit is the natural food of theſe birds, in their wild ſtate; but, in domeſtication, they eat bread, and almoſt any nutriment given to common poultry †. Different ſpecies are found in *Braſil*, *Guiana*, *Curaſſoa*, *Mexico*, and *Peru*. The tail of the curaſſo, according to Sir *Hans Sloane*, is only two inches long. This, however, is true of only one ſingle ſpecies, and in the female only.

* Fernandez, Hiſt. Av. Nov. Hiſpaniæ, cap. 101. † Idem ibidem.

Plate XIX

PEACOCK

PHEASANT

Section III.

Genus XXXII.—*The Peacock* *.

If empire were procured by beauty, and not by force, the peacock, without diſpute, would be the king of birds †. There is none of her feathered offspring, upon which Nature has heaped her treaſures with ſuch boundleſs profuſion. Of a tall ſtature, majeſtic ſtep, and elegant proportions, every thing belonging to this bird, ſeems to announce a creature of importance and diſtinction. It is crowned with a fine moveable creſt, of the richeſt hue, which adorns and heightens, without burdening its head. The plumage and tail of this magnificent bird, are adorned with colours ſo rich and various, that no human art can imitate, nor language deſcribe them. When it ſtruts in the ſunſhine, every moment produces a thouſand ſhades of undulating and evaneſcent colours, that are continually replaced by other ſhades, always different, and always admirably beautiful.

But this brilliant plumage, which exceeds the luſtre of the fineſt flowers, fades, like them, every year, and drops in the moulting ſeaſon; when the poor bird, as if afflicted on account of his loſs, and afraid to be ſeen in ſo humiliating

* Pavo, Lin. Le Paon, Buffon. † Buffon, Tome ii. p. 289.

humiliating a condition, always ſeeks to conceal himſelf in ſome gloomy retreat, till the return of ſpring again reſtore him his ſplendid dreſs. At that ſeaſon, he reſumes his ſtation in the open field, to receive the homage due to his beauty; for it is alleged, that nothing ſo much gratifies his pride, as the admiration of his gaudy apparel *.

Peacocks, though ſpread over the greateſt part of *Europe*, came originally from *India*; where they are found in vaſt flocks, in ſome parts of the *hither* peninſula † and the iſlands of the *Indian* ocean. So early as the days of *Solomon*, they were imported into *Judaea* ‡, by thoſe fleets which that monarch equipped upon the *Red Sea*; which, in all probability, traded to the coaſt of *Malabar*.

Ælian relates, that they were brought into *Greece* by the barbarians, (by whom he means the *Aſiatics*), where they were at firſt ſo rare, that, for thirty years after their arrival, they were exhibited at *Athens* as a ſhew to ſtrangers; and that multitudes flocked to ſee them from *Lacedemon* and *Theſſaly*, who were, each for a certain ſum, admitted to the ſpectacle §. This was after the time of *Alexander*; for that conqueror, though well acquainted with *Greece*, had never ſeen them, till he marched into *India*, where he found them, flying wild, on the banks of the river *Hyarotis*, and was ſo ſtruck with their beauty, that he inflicted a ſevere puniſhment on all who killed or diſturbed them. Towards the latter end of his life, they had ſo greatly multiplied in *Greece*, that *Ariſtotle*, who ſurvived his pupil only two years, ſpeaks of them as birds well known to his countrymen.

The

* Idem ibidem. † Plinii Hiſt. Nat. Lib. x. cap. 29.

‡ Kings, chap. ix. v. 26. § Ælhani Hiſt. Animal. Lib. v. cap. 21.

The peacocks being thus introduced from *Aſia* into *Greece*, ſoon ſpread over the reſt of *Europe*. They have even been carried as far north as *Sweden*; but, in theſe cold countries, they are produced but in ſmall numbers, reared with difficulty, and not without conſiderable diminution of their beauty *. From the great intercourſe of the *Europeans* with *America*, they are now introduced into almoſt every part of the new world.

At firſt the *Europeans* eſtabliſhed them upon the coaſt of *Africa*, where they are now domeſticated by the Princes of theſe countries, particularly of *Congo* and *Angola*. They have been long ago tranſported into *Mexico*, *Peru*, and the *Weſt India* iſlands, where they never could have appeared, but from the aid of man: Becauſe, according to a general law of nature, all quadrupeds, and birds of heavy flight, peculiar to the warm climates, cannot, without human aſſiſtance, eſcape from one continent to the other. The ſhort wings, heavy bodies, and embarraſſing tail of the peacock, muſt have for ever debarred him from attempting to fly over ſuch an extent of ſea.

When the peacock was firſt brought into *Greece*, it was only to gratify the eye with the ſight of its plumage. The *Romans*, however, who were richer, and carried, by conſequence, every exceſs of luxury to a greater length, ſoon ſerved them up as one of their moſt delicate diſhes. *Hortenſius*, the orator, is ſaid to have firſt made the peacock an article of food †. His example was ſoon followed by the epicures in *Rome*; inſomuch, that the price paid for theſe birds, ſoon became very high. The luxurious and effeminate emperors, refining upon the

* Linnæus, Syſt. Nat. edit. x. p. 156.

† Varro, de re ruſtica, Lib. iii. cap. 6.

luxury of former times, took a pride in collecting immenſe diſhes of the heads or brains of peacocks; dainties, which had nothing to recommend them, but the prodigious expence at which they were provided *. The ſame thing may be ſaid of their fleſh, which is hard and dry. But probably the *Roman* cookery, which was carried to a very high degree of perfection, might compenſate for theſe defects. Only the young, at preſent, which are deemed good eating: The old are ſeldom ſerved up, except at ſome formal and ſplendid feaſt. In *France*, they were formerly ſerved up with all their plumage, merely for ſhew; a purpoſe, for which they are perfectly ſuited, as their fleſh is ſaid to remain unaffected by corruption for ſeveral years †.

The peacock, though inferior in vigour, burns, perhaps, with a ſtill more immoderate deſire for his female, than the common cock. When attended by only one or two hens, he renders them ſterile and uſeleſs, by his tormenting importunities ‡. It is not till their third year, that the males are at their full ſize and vigour. Then their feathers are all at their full ſize; and the ſuperfluous nouriſhment, having nothing farther to add to the individual, is employed in reproducing the ſpecies. The female, ſoon after fecundation, lays her eggs in ſome retreat where ſhe may be concealed from the male, who would deſtroy them, were he to diſcover her charge. In theſe northerly climates, ſhe lays only from four to five eggs; whereas in *Greece*, according to *Ariſtotle*, ſhe produces twelve, and in *India*, ſometimes twice that number; ſo powerfully does climate operate upon the fertility of birds of this genus.

The

* Vide Suetonii Vit. duodec. Cæſar.

† Aldrovandi Aves, Tome ii. p. 27. ‡ Buffon, Tome xvii. p. 301.

The females too, of this genus, are of a temperament extremely laſcivious; for, when deprived of the male, they provoke each other; and, by rubbing in the ſand, produce an imperfect fecundity, and lay clear eggs, without a fœtus, from which no living animal can be obtained by incubation. This, however, happens only in the Spring, when the return of an agreeable and vivifying warmth, awakens all nature, and adds a new ſtimulus to that inclination which every animal poſſeſſes, of reproducing its kind. Theſe have been called *zephyrian eggs*, from the perſuaſion entertained by the ancients, that the ſoft weſtern breeze was ſufficient to impregnate the females of all thoſe birds, that laid without a previous connection with the male *. It ſtill more frequently happens, that the females are excited to the production of theſe barren eggs, by the blandiſhments of the male; by his ſpreading before them his brilliant tail, ſtrutting around them, and ſhewing every ſymptom of deſire: But theſe ſuperficial careſſes, without a more intimate connection with the male, can never operate a complete fecundation; and, in all thoſe inſtances, where they have been ſuppoſed to be impregnated by the eye, ſome previous, though unperceived, union of the ſexes, muſt have happened.

The female, during the whole period of incubation, carefully conceals herſelf from the male: And, for this purpoſe, ſhe tries to elude his notice each time ſhe returns to her eggs. In this genus, the male is more impetuous in his deſires, than faithful to the intentions of nature; is more intent on his own pleaſure, than on the multiplication of his kind. Were he to ſurpriſe his

* Buffon, Tome xvii. p. 302.

female upon her eggs, he would break them amidſt his tranſports, or purpoſely deſtroy them, that he might rid himſelf of an obſtacle to his enjoyment. The young, when excluded, are fed with crumbs of bread, cheeſe, and graſs. The ancients paid very particular attention to the rearing of theſe birds: They put each of the young ones into a ſeparate cage, to prevent them from fighting†. The male does not recognize the young for his own, till after they have got the creſt: Before that time, he chaces them like ſtrangers.

The peacock, like all other birds of the poultry kind, feeds upon grain. Barley is that in which it chiefly delights; but it is extremely capricious; and there is hardly any kind of food, which it will not, at times, covet and purſue. Inſects and tender plants are often eagerly ſought, at a time when it has a ſufficiency of its natural food provided more near. In the indulgence of theſe irregular appetites, walls cannot eaſily confine it. It ſtrips the tops of houſes of their tiles and thatch; it lays waſte the labours of the gardener; roots up his choiceſt ſeeds; and nips his favourite flowers in the bud. Thus, its beauty but ill compenſates for the miſchief it occaſions; and many of the more homely looking fowls, are very deſervedly preferred to it‡.

The cry of the peacock, which is harſh and diſagreeable, is rendered ſtill more intolerable, by the time in which it is moſt frequently uttered. It perches upon the houſe tops, and, in the dead of night, often interrupts the repoſe of other animals, by thoſe hideous ſcreams, from

† Varro, de re ruſtica, Lib. iii. cap. 6.

‡ Goldſmith, Vol. v. p. 174.

from which *Varro* alleges it derived its *Latin* name *. According to *Ælian's* account, adopted by *Willoughby*, the peacock lives no leſs a period, than an hundred years. *Ariſtotle* and *Pliny*, however, aſſign it the more moderate ſpace of twenty-five; a longevity, which accurate obſervations would probably confirm.

As it is only in *India*, that theſe birds are found in their natural freedom; ſo it is there alſo, that the inhabitants have invented a method of hunting them †. Although they are ſpread in vaſt flocks over the fields, there is no poſſibility of approaching them by day; ſo quickly do they penetrate the thickets, where they cannot be purſued. In the kingdom of *Cambaya*, where this diverſion is practiſed, the fowler obſerves the trees upon which they perch; and, in the night, approaches to them with a kind of banner, upon each ſide of which a peacock is painted to the life. A lighted torch is placed upon the top of this decoy; and the peacock, when diſturbed, flies to what it takes for another bird of its kind, and is caught in a nooſe, placed there for that purpoſe ‡.

There are not ſo many varieties of this bird, as might have been expected, from the long period in which it has been in a ſtate of domeſtication. There is one, however, of theſe varieties entirely white. The hare and the ermine, become, in ſome countries, white, from the coldneſs of the climate; but reſume their natural colour, when tranſported into a warmer latitude. The white peacock is different; for it produces a conſtant race of the

* Volucres pleræque a ſuis vocibus appellatæ, ut hae, *upupa*, *cuculus*, *ulula*, *pavo*. De lingua Latina, Lib. iv.

† Buffon, a l'article Paon.

‡ Voyage de Travernier, Tome iii. p. 57.

the ſame colour; and its eggs, though tranſported into the moſt ſultry climes, will yield birds of the parent hue.

This whiteneſs of plumage, has juſtly been deemed by naturaliſts the effect of migration. *Norway*, and the other countries of the north, have given birth to this ſpecies; for there they are found wild; and, from theſe frozen regions, they annually retire, to ſpend the winter in *Germany*. Whether this ſpecies was introduced into the north of *Europe*, by a voluntary migration from *Aſia*, or by the intervention of man, is a point, which cannot now be determined. It is probable, that it was wholly unknown to the ancients, ſince no mention is made of it in any of their writings; and it is to be preſumed alſo, that its migration into the north is not very ancient; for, though now common there, it was deemed extremely rare by all former naturaliſts *.

The feathers of this bird, though white, ſtill retain ſome ſhades of their primitive luſtre. Thoſe of the tail, particularly, ſhew ſome faint traces of that beautiful eye, which ſparkles at the end of each feather in the common variegated ſpecies. It is probable, that, were this bird removed into the milder regions of *Aſia*, its original colours would again return in a few generations †.

* Aldrovandi Ornithol. Tome ii. p. 31. & Scaligeri Exercitat. 59.

† Buffon, Tome xvii. p. 325.

SECTION IV.

GENUS XXXIII.—*The Pheaſant* *.

THE native country of the pheaſant is traced by all the naturaliſts to *Colchis* or *Mingrelia*; whence it was brought, down the river *Phaſis*, into *Greece*, by the *Argonauts*, in their expedition in queſt of the golden fleece. This fact, too remote to be well authenticated, is received on the teſtimony of *Martial*.

> *Argivâ* primum ſum tranſportata carinâ;
> Antè mihi notum nil, niſi *phaſis*, erat.

The pheaſants of that country are ſtill remarked to be the largeſt and moſt beautiful: Hence, it probably was their original habitation, from which they have gradually ſpread, in ſucceeding ages, over the greateſt part of the ancient continent. In *Great Britain*, and the northern parts of *France*, they are ſtill rare: In *Sweden*, the ſeverity of the climate has altogether prevented their propagation †; though they have been lately introduced into *Pruſſia* and *Sileſia* ‡.

From

* Phaſianus, Lin. Le Faiſan, Buffon.

† Vide Lin. Fauna Succica.

‡ Modo in Pruſſia colitur. Klein.

From its large ſize, and the ſhortneſs of its wings, the pheaſant is neceſſarily a bird of heavy flight. Of courſe, it has never been able to croſs thoſe broad ſeas, which, in the warm latitudes, ſeparate the old from the new continent, and to fly over to *America*. It has indeed been long reared in *St. Domingo*, by the *Spaniards*, who carried the breed from *Europe*.

Of all birds, except the peacock, the pheaſant has the moſt beautiful and finely variegated plumage. The golden *China* pheaſant, is ſaid even to vie with that ſplendid bird, in the richneſs of its colours; but the whole race wants the power of raiſing and expanding the feathers of the tail, and alſo that ſlender form, and thoſe elegant proportions, which ſo much enhance the charms of the peacock. The hen pheaſant has not the ſame luſtre as the male, whoſe plumage, though of a dark ground, ſhines with all the different reflections of gold, purple, and violet; varying conſtantly, according to the different points from which it is viewed. The rich luſtre of the feathers of this bird, depends upon their union, and poſition with regard to each other; for a ſingle feather, taken ſeparately, appears only brown or black; the gloſſy ſhades of green and yellow diſappearing.

There are ſeveral varieties of the pheaſant, occaſioned partly by climate, and partly by domeſtication. The white pheaſant is, probably, a variety occaſioned by the cold, if we may judge from the effects of climate on other animals. The ſpotted, and the variegated pheaſants, are ſuppoſed to be a mixed race, ariſing from the union of the common ſpecies with the white; as the baſtard pheaſant is allowed to be the offſpring of the pheaſant and common hen *, produced by domeſticating the former in the

* Buffon, Tome xvii. p. 353.

the poultry yard. The golden pheaſant of *China*, the moſt beautiful of this genus, may be regarded rather as a variety, than a different ſpecies. *Buffon* alleges, that theſe varieties are branches of the ſame original family, which, after a long ſeparation, are ſtill capable of forming alliances, and producing an offspring. The ſingular beauty of the golden pheaſant, has introduced it into the pheaſandries in many parts of *Europe*, where ſucceſsful attempts have been made to make it breed with our own. The prevailing colours of its plumage are red, yellow, and blue; and it is diſtinguiſhed by a beautiful creſt upon the head, which it raiſes at pleaſure. The iris, the bill, and the legs, are yellow. The tail is longer, and more exquiſitely enamelled, than that of the *European* ſpecies: Above it, there proceed a number of long, ſtraight feathers, of a ſcarlet hue, mixed with yellow; ornaments, for which it ſeems indebted to the influence of a milder and more ſerene ſky *.

The pheaſants, in their wild ſtate, feed, like the reſt of the gallinaceous tribes, upon all kinds of grain and herbage. When young, they are very difficult to be reared; becauſe they muſt then be ſupplied with ants-eggs, which conſtitute the food, to which, in their wild ſtate, they are, when young, accuſtomed. Wood lice, earwigs, and other inſects, are collected by thoſe who rear them in order to vary their nouriſhment. From their extraordinary ſize, their beauty, and the delicacy of their fleſh, they are every where conſidered by the ſportſman as excellent game. There is, accordingly, no bird upon which ſuch pains have been taken in its propagation, in parks and pheaſandries: There is none, however, upon which the influence of domeſtication has been ſo inconſiderable.

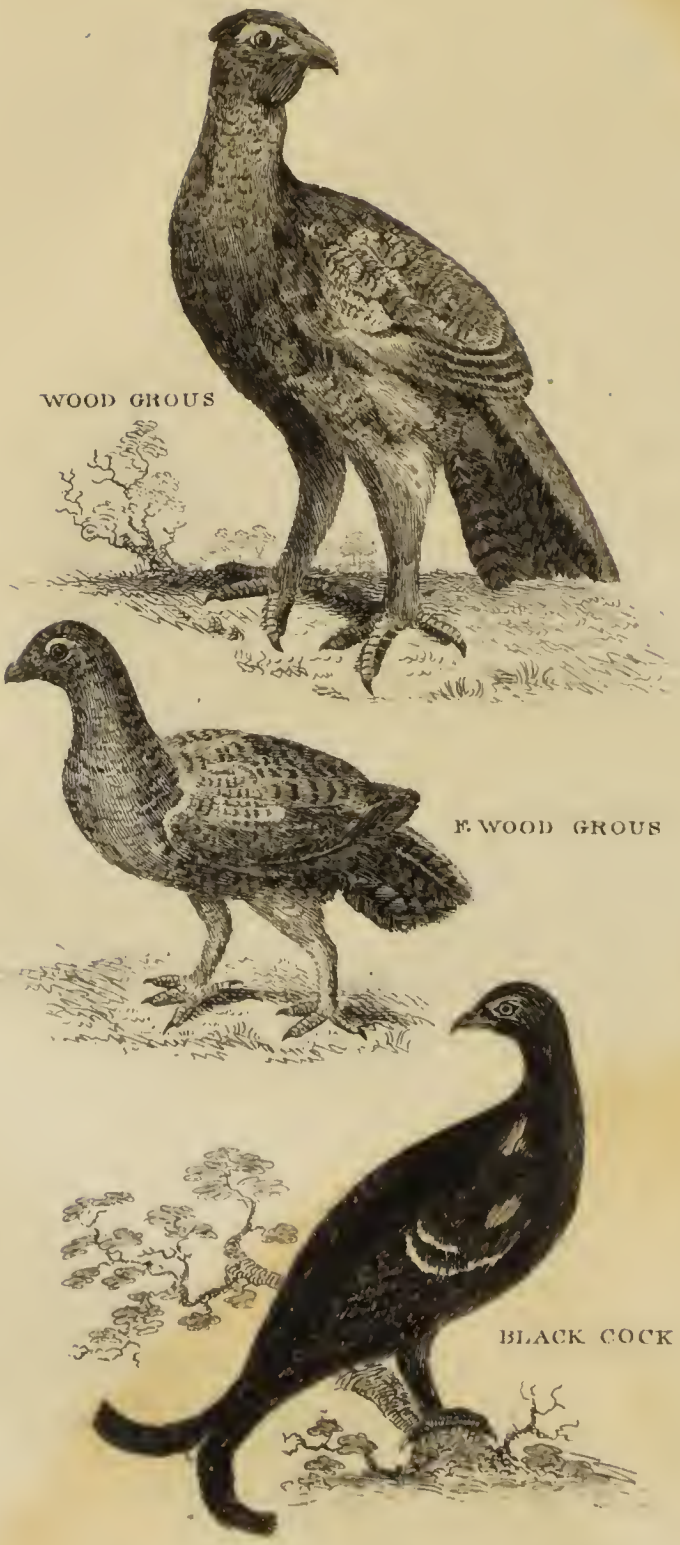
* Buffon, ubi ſupra.

ſiderable. So wild are they by nature, that, even where they depend on man for ſupport, they continually fly at his approach. They even avoid one another; for it is only in the months of March and April, that the male and female aſſociate together. They are then frequently diſcovered in the woods, by the noiſe which the male occaſions by clapping his wings *. When ſtarted, they make a whirring noiſe, like the partridge, which warns the ſportſman; and, being a large mark, and flying very ſlow, there is no difficulty, even to an inexperienced ſhooter, to bring them to the ground.

The hen pheaſant conſtructs her neſt without the aid of her mate; and, generally, in the moſt ſecret and inacceſſible corner of the foreſt. It is apparently a careleſs fabric of leaves and withered graſs: When, however, ſupplied with a neſt carefully built of theſe materials, ſhe is never ſatisfied, till it be new-modelled from the foundation, after her own manner. The number of her eggs is various, according to the climate, and her means of ſubſiſtence. She lays from a dozen to twenty; but when they are carried away, ſhe continues, like the common hen, her vain efforts to fill the neſt. Many directions are given in the *Journal Economique*, and other books, for the rearing of the young: To theſe I refer the reader.

* Olina, page 39.

Plate XX



SECTION V.

GENUS XXXIV.—*The Grous* *.

UNDER this genus there are four ſpecies; the *cock of the wood;* the *black cock*, or *heath-fowl;* the *grous*, and the *ptarmigan*. The cock of the wood is of the immenſe ſize of two feet eight inches in length; and the weight of the male, which is conſiderably larger than the female, is from twelve to fifteen pounds. The two ſexes differ greatly in colour, as well as in ſize. The head, neck, and back of the male, are elegantly marked with ſlender lines of grey and black, running tranſverſely. The upper part of the breaſt is a rich ſhining green; the reſt of the breaſt, and the belly are black, mixed with ſome white feathers. At the inſertion of the wing, there is a large white ſpot, and the inner coverts are of the ſame colour. The tail, conſiſting of eighteen feathers, is black, with a few white ſpots on each ſide of the feathers. The female is red on the throat: Her head, neck, and back, are marked with bars of red and black: Her belly is of an orange-colour, and the tail ferruginous, and barred with black †.

The cock of the wood differs from all the reſt of the genus, in his predilection for woods, and perching upon

* Tetrao, Lin. Le genre de la Gelinote, Briſſon.

† Pennant's Brit. Zool. Vol. i. p. 200.

trees; particularly on the pine, birch, and juniper. He feeds on the tops of the two former, and on the berries of the latter. To this food, in his wild ſtate, he adds plants, vegetables, and eggs of ants; the laſt being the principal ſupport of the young. The cock of the wood is found on the *Alps*, *Pyrences*, and the high mountains of *Switzerland*, *Italy*, and *Greece*. From theſe mountainous retreats, he ſometimes ventures down in ſummer, to make depredations on the corn fields. Then, however, he is ſo ſhy and ſuſpicious, that he never can be taken.

Theſe birds never pair. At the ſeaſon of love, which continues from March, till the trees be covered with leaves and the foreſt be in full bloom, the male is ſeen perched upon a pine, where he moves backwards and forwards, calling upon his females. His head, upon theſe occaſions, is ſwollen and red; his wings hanging, and his neck ſtretched forward. His cry begins with a kind of loud exploſion, which is followed by a noiſe, like that of the whetting of a ſcythe. By this ſingular noiſe, which is heard at a great diſtance, all the females in the neighbourhood are collected around the foot of the tree; from the top of which the male deſcends, and joins their ſociety *.

During the continuance of this cry, which continues for about an hour, the animal, as if ſtunned by its own noiſe, is altogether inſenſible. Although at other times the moſt ſhy of all birds, yet, while in this kind of extaſy, all his faculties ſeem ſuſpended; and neither the approach of a man, nor the diſcharge of a fowling-piece, can make him remove from the ſpot. While thus abſorbed by his inſtincts, and inſenſible to every danger, ſhould the ſportſman encounter him, he falls an eaſy prey to his exceſſive

* Journal Economique, April 1753.

exceſſive tranſports, and to the ſtrength of his appetites.

The female of this ſpecies lays five or ſix eggs, and ſometimes more, which are white, and marked with yellow, and of the ſize of thoſe of a common hen. During incubation, when ſhe leaves them to ſearch for food, ſhe carefully covers them over with moſs; ſo that they are but rarely found. Though as timorous and ſhy, on other occaſions, as the male, ſhe is, at this ſeaſon, ſo tame, and deeply intereſted in her charge, that ſhe will ſit till ſhe be dragged from the neſt; her affection for her offspring, thus effacing the dread of danger *.

Next to this ſpecies, in point of ſize, is the black cock; the male weighing about four pounds. The plumage of the whole body is black, gloſſed over with a ſhining blue. The female, which is not much above half the ſize of the male, differs alſo in colour; all her plumage being marked with bars of red, nearly reſembling the colour of a partridge. They are found in the north of *Scotland*, and in ſome countries oppoſite to it on the continent. The young males, at the approach of winter, aſſemble together in flocks, when they fight with the fury of game cocks, and often kill each other. The victors mount upon a little eminence, where they ſtrut about, proclaiming their victory, with cries, and repeated claps of their wings. At theſe times, they are ſo inſenſible to all danger, that, during their engagements, ſeveral may be killed with one ſhot. The common grous are of a ſize ſtill leſs, and are ſo well known, that they need not be deſcribed. The ptarmigan is the ſmalleſt of the rough-footed game, and is of a pale brown or aſh-colour. It is found only on

* *Buffon*, Tome ii. page 208.

on the higheſt mountains, and moſt frequently in the north of *Scotland*.

This bird is alleged by *Buffon* to acquire its pure white only during the winter ſeaſon; and he claſſes it along with quails, partridges, ſwallows, and other birds, which are known to become white by cold *. *Friſch* corroborates this opinion of *Buffon*, by aſſerting, that no white ptarmigans are ſeen during ſummer. Its feet, like thoſe of the hare, are covered with a kind of down, below, as well as above; and thence it is termed *lagopede*, by the *French* naturaliſt and *Pliny*. Of all the grous kind, the ptarmigans are the moſt ſhy, and leaſt ſuſceptible of domeſtication. The other ſpecies of game have frequently been tamed, if not domeſticated; but, ſo far as we can learn, this particular race has baffled every effort of this kind.

Theſe four different ſpecies are all eaſily diſtinguiſhed from the birds of the poultry kind, by a naked ſkin, of a ſcarlet colour, above the eyes, in the place and of the figure of eye-brows. The roughneſs of their legs and feet, is another diſtinguiſhing character. It ſeems, like the fur upon the foot of the hare, intended by nature as clothing, to defend them from the rigour of the winter. The ptarmigans are farther provided with broad and hollow nails, by which they are enabled to form a lodge under the ſnow, where they are ſaid to lie in heaps, to protect themſelves againſt the cold †. On the *Pyrenees*, and in *Syria*, there is a ſpecies of grous, ſmaller than ours, of a yellow olive colour, mixed with black and brown.

The bird found upon the *Pyrenees*, called the *ganga*, differs remarkably from the grous kind, common in the reſt of

* Vide Buffon, Tome xvii. p. 264.

† Pennant's Brit. Zool. Vol. i. p. 207.

of *Europe*. It ſeems to be a gregarious bird: It has long wings, and a rapid flight; and, in its tail, there are two feathers, that far exceed the reſt in length. The female is nearly of the ſame ſize, but leſs vivid in her plumage. There are ſeveral other ſpecies, or rather varieties, belonging to this genus. M. *Briſſon* mentions no leſs than twelve, including the ptarmigan. Among theſe are the brown ſpotted moor-fowl of *Hudſon's Bay*, the larger and ſmaller grous of *Canada*, and the ruffed heath-cock of *America*.

The ſpecies found in *Scotland* is always deſcribed by foreign naturaliſts, as peculiar to that country. It is deſcribed by *Briſſon* under the name of *la gelinote d'Ecoſſe*, and was ſent to M. *Reaumure* by the Earl of *Morton* *.

* Vide Briſſon, a l'article.

Section VI.

Genus XXXV.—*The Partridge* *.

The moſt common ſpecies of this numerous tribe of game, are the g*rey partridges*, and the *red*. The former alone ſeem to frequent *Britain*. The latter abound in the mountainous and woody parts of the ſouth of *Europe*, and ſometimes perch upon trees. Different ſpecies of this bird are found all over the world; the partridge, it would ſeem, having the power of accommodating itſelf to every climate. It is found in *Braſil*, *Mexico*, and the different regions of *North America*. In the old continent, from *Senegal* to *Greenland*, different kinds are enumerated by the naturaliſts. In the latter country, the partridge, which is brown in Summer, as ſoon as the froſts ſet in, aſſumes a plumage ſuited to the climate. It is, at that ſeaſon, covered below with a thick and warm down, and the external feathers are white, like the ſnow, among which it ſeeks for food †.

The males of this genus are more numerous, than the females; and all the ſpecies agree in being immoderately addicted to venery; a circumſtance, from which two peculiarities ariſe, in all animals in which that appetite predominates;

* Le Perdrix, Buffon. Tetrao pedibus nudis, Lin.

† Goldſmith's Nat. Hiſt. Vol. v. p. 209.

Plate XXI

TERMAGANT

PARTRIDGE
From M.Wier's Muſeum

Beugo F.

predominates; a ſtrong attachment to their young, and violent animoſities among the males *. During the Harveſt and Winter months, the different families live peaceably together; but no ſooner does the Spring approach, than the males engage in the moſt obſtinate battles, which often prove fatal; nor is peace reſtored till they ſeparate in pairs, for the purpoſe of multiplying and perpetuating their kind.

The addreſs of theſe birds in preſerving their eggs and their young is no leſs remarkable. Whenever a dog, or any formidable animal approaches the neſt, the female draws him away, by keeping fluttering before him. She then pretends to be almoſt incapable of flying, and hops before him at ſufficient diſtance to be free from danger, without diſcouraging his purſuit. At length, when ſhe has thus drawn him entirely away from her ſecret treaſure, ſhe takes her full flight, and leaves him to gaze after her in deſpair †. When the young are excluded, the ſame artifice is ſaid to be put in practice by the male, while the female remains ſquat with her brood till the danger be over ‡. Of the birds of this genus, the *Bartavelle*, or partridge of *Greece*, is the moſt ſalacious. *Ariſtotle*, who had an opportunity of examining the manners of theſe birds, mixes the marvellous ſo ſtrongly with his narrative, that little dependence can be had on his teſtimony. He aſſerts, that the female may be fecundified by the cries of the male; by his flying over her; and even by the wind, if impregnated with particles that eſcape from his body §. By theſe extravagances no more

* Buffon, tome xvii. p. 409.

† Goldſmith's Nat. Hiſt. ‡ *Vide* Buffon, tome xvii.

§ Ariſt. Hiſt. Anim. lib. vi. cap. 2. Sed idem faciunt (pariunt ova) ſi digito genitale palpitetur.

can be learned, than that the female bartavelle, like the common hen, will lay without any intercourſe with the male. He alleges farther, that the males copulate together; and that the female, during incubation, on hearing the cries of another bird of her own ſex, will riſe from her neſt, to ſatiate the appetite of her mate, leſt he ſhould be provoked to become unfaithful. *Buffon*, who endeavours to vindicate, or explain away theſe abſurdities of his favourite naturaliſt, ſays, that the bartavelles are ſo much intoxicated and tranſported in the ſeaſon of courtſhip, that they ſometimes come and perch upon the ſportſman. He repeats a fact from *Geſner*, which, if properly confirmed, would put the laſcivious habits of theſe birds beyond a doubt *.

This ſpecies is remarkably prolific; a proviſion of Nature, without which the ill-fated race, ſurrounded, as it continually is, by a thouſand enemies, muſt have long ſince been annihilated. The hen lays annually from fifteen to twenty eggs, reſembling thoſe of a pigeon. Seldom, however, does a whole brood arrive at its adult ſtate. The eggs are the food of ſome birds; the young are devoured by others; and man, the moſt formidable enemy of all, begins ſyſtematically to deſtroy them, as ſoon as the ſhooting ſeaſon commences, which is nearly as early as the young are capable of flying, and long before they are capable of ſubſiſting by themſelves.

The birds of this and the preceding genus, conſtitute chiefly what is termed game, among the modern nations of *Europe*; and there is hardly any country, in which the killing of them has not been made an object of public regulation. The legiſlative power, whether lodged in a king, parliament,

* Ils ne peuvent entendre le cri de leurs femelles ſans répandre leur liqueur ſeminale. Euſtath. apud *Geſner*: De avibus, p. 673.

ment, or national aſſembly, has uniformly framed what are termed game-laws, the great aim of which has been, to appropriate ſolely to the rich, animals which are fed by the poor, and which, were they property, would, on principles of equity, belong to the latter.

Among the ancients, the amuſements of hunting and ſhooting were hardly known. Wild animals, accordingly, were not held as property by the *Roman* law; but belonged to the finder. Every perſon had a right to purſue them, who did not, by ſo doing, injure the property of another. The ſavage nations of the North, who overran the *Roman* empire, had been accuſtomed, in thoſe barren regions from which they iſſued, to procure a conſiderable part of their ſubſiſtence by hunting. This exerciſe, among all rude nations, is deemed honourable, as it implies cunning, activity, and enterpriſe. Among ſuch, therefore, it is excluſively followed by the men, while the women are confined to the meaner drudgery of agriculture.

When theſe nations eſtabliſhed themſelves in the different provinces of the *Roman* empire, they but thinly peopled thoſe vaſt countries, that became the reward of their valour. The ſame habits and the ſame ideas ſtill were retained; and the largeneſs of their territory gave them full liberty to gratify their favourite purſuits. The cultivation of the land was left to the dependents of every great chieftain, or to his conquered vaſſals. The ſports of the field were purſued excluſively by himſelf, or by thoſe to whom he had parcelled out his land.

All encroachments upon the favourite amuſement of the nobles, were ſeverely checked, as plebeian uſurpations; and, as game gradually grew ſcarcer, thoſe offences were watched with a jealous eye, and prohibited by the legiſlative aſſemblies, which conſiſted of all the great

barons, who held their lands immediately of the crown. Such has been the origin of the game laws, among all the feudal governments of *Europe*; and, while commerce and a ſpirit of freedom have gradually ſoftened the rigour of moſt of the *Gothic* inſtitutions, the monopolizing ſpirit of the game laws has ſuffered but little abatement. The far greater part of the legiſlative body being themſelves men of hereditary rank, have ſtrenuouſly defended or augmented their ariſtocratic privileges, wherever they found it practicable; while the game laws have been deemed a matter of too ſmall moment, to excite the commercial and democratic part of the community to exert its ſtrength. Hence the laws relating to the killing of game, are, in almoſt every country, the laſt part of the *Gothic* fabric that remains undeſtroyed.

In *France*, where the States General had long been diſuſed, and every control over the power of the crown aboliſhed, the game laws were, till lately, extremely rigorous and oppreſſive. In many places, the peaſant who took a deer, or killed a partridge, was regarded as a greater criminal in the eye of the law, than if he had murdered a man, and his puniſhment was proportionably more ſevere. By the ſides of the high ways, and even in the vicinity of *Paris*, great numbers of game were ſeen running unmoleſted, being preſerved for the exclufive entertainment of the monarch. But, by the late aſtoniſhing Revolution in that ancient kingdom, the fabric of deſpotiſm and of oppreſſion has been demoliſhed; and the *National Aſſembly* of the *Franes*, having founded their new political conſtitution on the *rights of men*, have aboliſhed *game-laws*, which, wherever they exiſt, are humiliating monuments of regal or of feudal oppreſſion.

In *Britain*, the game laws are almoſt every year increaſed in number and intricacy, by the cautious policy of

of our wife legiſlators ; who ſeem much more intent on the *preſervation* of the *game* upon their eſtates, than of the *rights* of their *fellow-citizens*. Many of them, when at their country ſeats, from want of a *literary* education, have hardly any other *ſource* of enjoyment beſides the *chace*. No wonder then that the deliberations of the *Britiſh* ſenate ſhould often be devoted to a ſubject, with which many of its members are ſo thoroughly acquainted ; and that it ſhould guard, by the moſt anxious regulations, an amuſement, from which alone many of its number are capable of deriving enjoyment.

*The Quail**.

NEARLY allied to the partridge, and of the ſame genus, is the quail : It is, however much inferior in ſize, being only ſeven inches long, and fourteen broad. The feathers of the head are black, edged with a ruſty brown. The hind part of the neck, and crown of the head, are divided by a long pale yellow line : The breaſt is of a yellowiſh red, ſpotted with black : The ſcapular feathers, and thoſe upon the back, are marked, in their middle, with a pale yellow line, and, on their ſides, with ferruginous and blackiſh bars.

The quail is excellent game, and is more univerſally ſpread over the ancient continent, than any of the other kinds we have hitherto deſcribed. It is found in every country from the *Cape of Good Hope* to *Iceland* and *Tartary*. Its fleſh is fat, juicy, and nutritive, and is every where deemed a delicate diſh in modern times. The ancients entertained a prejudice againſt eating its fleſh, from

* La Caille.

from a ſuppoſition, that it fed upon hellebore *, and was ſubject to the falling ſickneſs. Theſe birds are more eaſily caught than the partridge; the force of their amorous inſtinct rendering them an eaſy prey to the artifices of the fowler. Early in the morning the nets are ſpread, and the fowler, having placed himſelf under them, imitates the voice of the female with his quail pipe. At this cry the male eagerly comes up, till he enter below the net, and be there ſurpriſed and taken by the fowler, who immediately ſtarts up. In *China*, they are taken in vaſt numbers, and carried alive by the inhabitants to warm their hands.

The quail is a bird of paſſage, whoſe migrations have been the ſubject of much diſquiſition among the naturaliſts. In moſt countries of *Europe*, it appears in the month of May; and takes its departure, about the beginning of September, for the continent of *Africa*. The cauſe of their migration is not the cold, which they are able to ſupport, as has been found by repeated experiments; but a deficiency of thoſe plants and inſects, upon which they feed †. They are frequently ſeen croſſing the *Mediterranean* to *Africa*, in September, and returning, in the ſpring, to *Europe* ‡. In this long journey they are often ſo fatigued, that they alight upon the rigging of veſſels, and are caught by the ſailors. At theſe times they are found in vaſt numbers in *Egypt*, and around the coaſts of the *Red Sea*; thoſe diſtricts lying in the route, in which they then fly, between *Africa* and the northern parts of *Europe* and *Aſia* §. In ſome parts of *England*, and in the ſouth of *Spain* and *Italy*, the quail remains the whole year:

* Semen veneni gratiſſimus cibus, quam ob cauſam, eam damnavere menſæ, Plinii Hiſt. Nat. lib. x. cap. 23.

† Vide Buffon, tome xvii. p. 452. where he treats this ſubject at large.

‡ Vide Balernius, p. 264. § Pſal. lxxvii. and Joſeph. book iii. cap. 1.

year: There the winters are not ſo ſevere, as to deſtroy entirely thoſe inſects, upon which they feed. In *Kent* and *Eſſex*, when the froſt and ſnow oblige them to quit the ſtubble fields of the midland counties, they are ſeen retreating to the ſhore, and feeding among the ſea-weeds.

The quails are altogether promiſcuous in their amours. The ſame male will, in one day, cohabit with a dozen of different females. Where the number of males ſo greatly exceeds that of the females, there can be no fidelity or attachment between a ſingle pair. The fertility of the quails depends on the warmth of the climate where they reſide. In *England* they lay only ſix or ſeven eggs; in *France* and *Italy*, above twice that number; and it is rare that any of them are addled by incubation, the ardour of the male being a full ſecurity againſt the infecundity of any of the eggs.

The quails are endowed with a courage proportioned to the ſtrength of their amorous inſtincts. Like the grous and partridges, they engage in conteſts with each other. Quail-fighting was as common at *Athens*, as cock-fighting is with us; and conſiderable ſums were ſtaked on the event of a battle. Puerile, as to us it may ſeem, this diverſion was in high eſtimation at *Rome*; for we find, in the time of *Auguſtus*, a prefect of *Egypt* puniſhed with death, for having ſerved up, at an entertainment, one of theſe birds, which had acquired celebrity from its many victories. In ſome towns of *Italy*, this amuſement is ſtill in faſhion *.

* Aldrovandi Ornithol. tome ii. p. 161.

Section VII.

Genus XXXVI.—*The Trumpeter* *.

This bird is of the ſize of a common hen. Its bill is black, and about an inch and an half in length. Beneath the hind toe, there is a ſmall round protuberance. The wings are black, and do not reach farther than the body of the bird. The back, the belly, and the thighs are of an aſh colour: The head and neck are variegated with ſpots of black and deep yellow.

The trumpeter is well entitled to a ſeparate place in a ſyſtem of ornithology. Some ſyſtem makers have claſſed it with the pheaſant, others with the partridge; while a third ſet have endeavoured to eſtabliſh its affinity to the cranes. It inhabits *Guinea* and *Braſil;* and, though it frequent the woods, it ſeldom or never perches upon the trees, but contents itſelf with the fruit that drops from them. Theſe birds are eaſily tamed; and, in that ſtate, diſcover all the attachment and fidelity to their owner, that diſtinguiſhes the dog †.

Of this attachment, the *agami*, as it is called by the natives of *Cayenne*, gives the moſt unequivocal proofs. If

* Pſophia, Lin. La Groſſe Perdrix du Breſil. Briſſon.

† Vide Voſmaer's Account of a tame one in Holland. Amſterd. 1768.

If kept in a houſe, it follows its maſter, and careſſes him; and, if he have been, for a while, abſent, it teſtifies, on his return, the moſt lively joy. This good humour, however, is not always uniform. It is frequently interrupted by fits of ſpleen and anger, which are often as unaccountable, as they are unprovoked. Theſe diſguſts are ſuppoſed to ariſe from ſomething unpleaſing in the figure or ſmell of the perſon diſliked; and, when actuated by them, the trumpeter chaces away the object of its diſpleaſure, bites his legs, and treats him with every mark of reſentment.

This docile bird obeys the call of his maſter, and is more familiar, than, perhaps, any of the feathered race. He voluntarily preſents his head and neck to thoſe who are his favourites, to be ſcratched. He is even troubleſome with his complaiſance, and ſeems not ſatisfied, unleſs you renew your careſſes every moment. At dinner, even though uninvited, he is a regular attendant. On his firſt entering the room, he puts to flight every dog and cat; and, before he aſk any meat for himſelf, he muſt be maſter of the field. This is ſometimes not accompliſhed without a bloody battle; but ſo bold and courageous is this bird, that he will never fly, till he have defeated the dog. The manner of his fighting with this animal, is by ſpringing up into the air, to avoid his bite; thence he darts upon his head, with an intention to put out his eyes; and, when he has overcome his enemy, he purſues him with ſingular rage, and will not fail to put him to death, if not prevented.

He diſcovers nearly the ſame ſagacity, as the dog; and is ſaid to be capable of being trained to herd ſheep. Like the dog, he is jealous of thoſe who ſhare the favour of his maſter, and ſeverely puniſhes the negroes who make too near approaches to him *.

* Vide Buffon, Tome xix. p. 498.

The trumpeter builds, or rather digs a neſt at the root of a tree, where it lays about ſixteen eggs. It is remarkable for making a ſtrong ſound with its bill, which it anſwers by another deep tone, that appears to come from the anus, though in reality it proceed from its belly.

Genus XXXVII.—*The Buſtard* *.

Next to the oſtrich, and thoſe tribes of the feathered race which cannot fly, the buſtard is the largeſt. It is ſuperior to all the *Britiſh* birds in point of ſize, and juſtly conſidered as the nobleſt game the ſportſman purſues. The weight of the male, when old, is from twenty to thirty pounds: His length is near four feet, and his breadth nine. The male is diſtinguiſhed from the female both by ſize and colour, and by a long tuft of feathers hanging down from each ſide of the lower mandible. His head and neck are of an aſh colour; while the back is barred acroſs with a black and ruſt-coloured belt. The quill feathers are black; the belly is white; and the tail, conſiſting of twenty feathers, is beautifully marked with broad bars of red and black. The female is about one half of the ſize: Her plumage nearly reſembles that of the male; only the head is brown, croſſed with black lines, and the colours of the back and wings are leſs vivid.

The buſtard, like all other gallinaceous birds, lives upon grain and vegetables. To this food, in ſummer, it adds thoſe large earth-worms, that appear, in great quantities, on the downs, before the ſun-riſing: During winter, it eats the bark of trees, and, at all times, ſwallows pebbles to aſſiſt the ſtomach in digeſtion †. Buſtards

* Otis, Lin. L'Outarde, Buffon.

† Buffon a l'article Outarde, Tome xvii. p. 29.

are found all along the eaſt part of *England*, from *Dorſetſhire*; and as far north, as the *Lothians*, in *Scotland*. Nature has made an admirable proviſion to ſupply them with drink, in thoſe extenſive and perched tracts of *Europe* and *Africa*, which they inhabit. The male carries a large pouch under his chin, which is capable of holding no leſs, than ſeven quarts of water. This magazine, becauſe its opening lies immediately under the tongue, can be filled by the male at pleaſure, in order to ſupply the young, or the female while hatching *.

The female buſtard conſtructs no neſt; but, in a hollow place, which ſhe ſcratches in the ground, lays two eggs, which ſhe hatches for thirty days. Towards Autumn, when the young are grown up, buſtards collect together in flocks of forty or fifty, and commit depredations upon the turnip fields. Although collected in theſe numerous bodies, and of great ſtrength, they are ſo extremely timid, that, on the ſmalleſt appearance of danger, they all conſult their ſafety by flight. When raiſed, and fairly on wing, they can fly for ſeveral miles without reſting; but, as they find it extremely difficult to take their flight, eſpecially when hurried by the dogs, they endeavour to ſave themſelves by running, in which they are very alert. From their want of the back toe, they are incapable of perching upon trees; and, therefore, fall a ſacrifice, at laſt, to their purſuers. When taken, ſo great is their terror, that they die rather from fear, than from the wounds they have received †.

Buſtards may be conſidered the native and peculiar inhabitants of the old world; where they are attached to no particular climate, being found in all the intermediate

* Pennant's Brit. Zool. 8vo, vol. i. p. 215.

† Geſner de Avibus, p. 488.

diate regions, from the deſerts of *Lybia* to the ſhores of the *Baltic*. On the continent, there is a ſmall ſpecies of the buſtard, about the ſize of a pheaſant, called by the *French*, *canepetiere*. This ſpecies exactly reſembles the former, in ſhape, colour, and the number of its toes: Only the male has not that long tuft of feathers, that, in the larger kind, hangs from the ſides of the lower mandibile; has fewer feathers, by two, in the tail, and one more in each wing *.

This ſpecies is not nearly ſo widely diffuſed as the foregoing, being rarely ſeen in any country of *Europe*, except *France*. *Linnæus* makes no mention of it, in his enumeration of the birds of *Sweden*; and the authors of the *Britiſh* zoology, do not rank it among the birds of this iſland. Although one was ſhot in the county of *Cornwall*, they conſider it as a ſtrayed bird, rather than a native of *Britain*. Such, in fact, it muſt have been, becauſe, when an individual of this ſpecies was preſented to the Royal Society, none of the members, who were then preſent, knew its name, till Mr. *Edwards* was ſent for, to inform them what bird it was †.

* Vide Buffon, Tome xvii p. 45.

† Vide Edwards's Gleanings, p. 251.

CHAPTER V.

Section I.

Order IV.—*Columbine.*

Genus XXXVIII.—*The Pigeon* *.

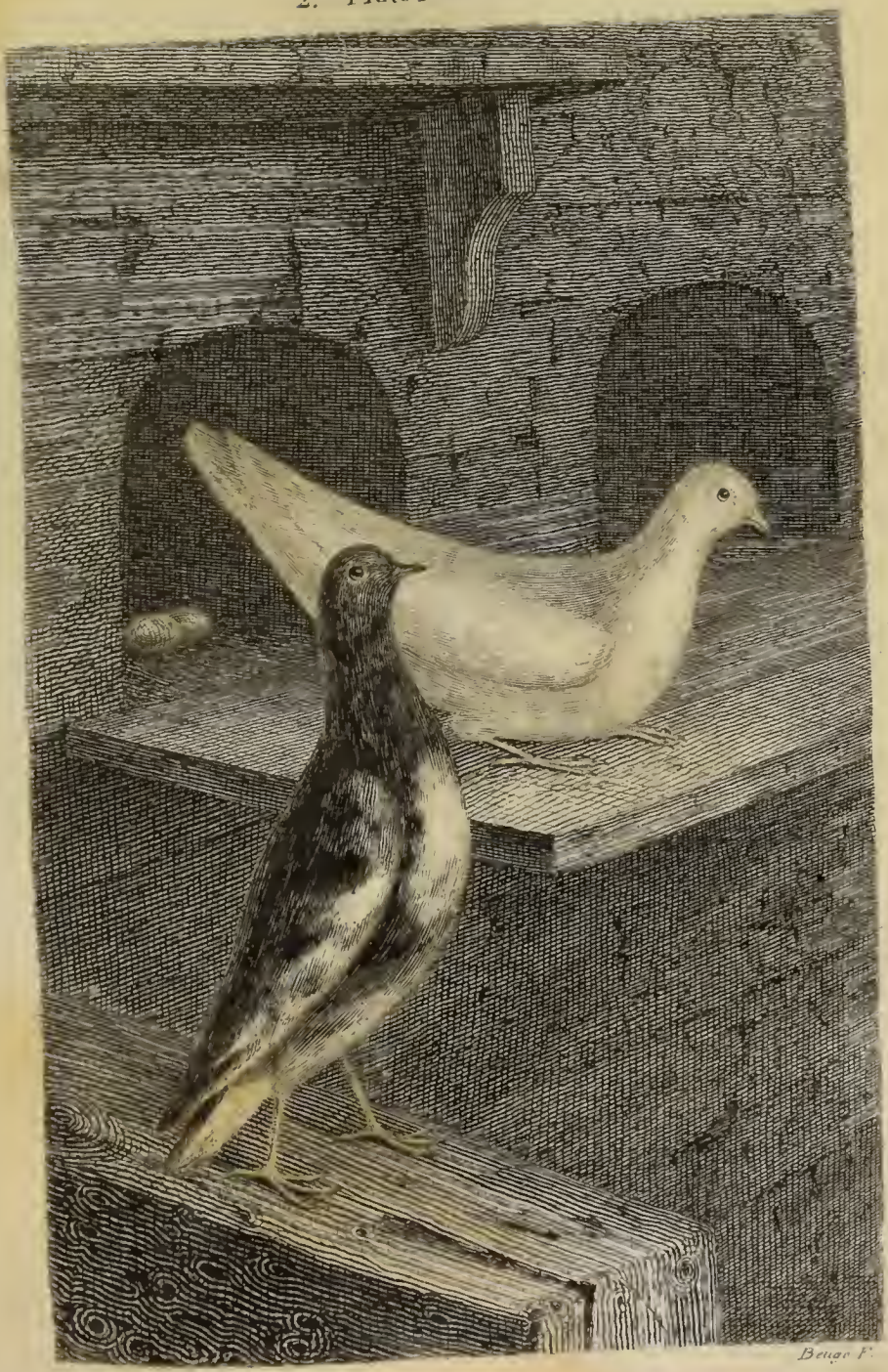
The pigeon was brought into a domeſtic ſtate, at a very early period, and ſeems to have been known to the *Greeks* from the time of *Ariſtotle*. That philoſopher, however, ſeems to have been unacquainted with thoſe immenſe varieties, which, in a long ſucceſſion of ages, Nature, aided by the art of man, has ſince produced. He mentions only four ſpecies, which, from their producing from ten to twelve flights in a year †, muſt have been of the domeſtic kinds: For it is a law, that all animals become more productive in proportion to their accommodation, and the abundance of food with which they are ſupplied. The common pigeon, which is ſo prolific, when aided by the foreſight and bounty of man, ſeldom, when wild, produces above one, and never more than two pair in a year.

The varieties of the domeſtic pigeon, which, in the time of the *Grecian* naturaliſt, were few in number, had greatly increaſed among the *Romans*; among whom, varying

* Columba Ænas, Lin. Le Pigeon domeſtique, Briſſon.

† Vide Hiſt. Animalium, lib. vi. cap. 4.

2.d Plate XXII



PIGEONS

ing and improving the breed was held an object of ſuch importance, that they erected high towers upon the tops of their houſes for this purpoſe, and marked the genealogy of their pigeons as carefully, as we do that of our race-horſes *. *Pliny* mentions a generous breed in *Campania*, a pair of which, whoſe anceſtry was well authenticated, brought a very high price. The ſame attention to the breed of pigeons, has continued in ſome of the modern nations of *Europe*. By ſingling out, every ſeaſon, the moſt beautiful and remarkable of the produce of the dovehouſe, bringing them into a more cloſe captivity, and pairing again the moſt ſingular of their new progeny, varieties, almoſt infinite, have been produced. Adepts in this buſineſs, pretend, that they can be bred to a feather; and, according to their different properties, they have endeavoured to diſtinguiſh them by the various names of *Tumblers*, *Carriers*, *Jacobines*, *Croppers*, *Runts*, *Turbits*, and by a long liſt of other appellations intelligible only to the maſters †. To give a detail of all the varieties of the domeſtic pigeon, would not prove a hiſtory of Nature, ſo much as of human art. Of the forty-four different ſpecies, independent of varieties, which *Briſſon* ‡ has deſcribed, we ſhall here confine ourſelves to three; which appear to have always continued unmixed, and to one or other of which all the reſt may be reduced. Theſe are the *Stockdove*, the *Ringdove*, and the *Turtle*.

The

* Columbarum amore inſaniunt multi; ſuper tecta exædificant turres iis, nobilitatemque ſingularum, & origines narrant veteres. Pliny, lib. x. cap. 37.

† Vide Pennant's Brit. Zool. vol. I. p. 218.

‡ Briſſon, vol. I. p. 67.

The Columbine Order, conſiſting of theſe three different ſpecies, is diſtinguiſhed by being monogamous. The male and female continue faithful and attached to each other, not only for the ſeaſon, but frequently during life. The fatigues of neſtling, incubation, and feeding the young, are ſhared equally by both parents. The ſeaſon of courtſhip is announced by a plaintive and *cooing* note, peculiar to the order. The male, while paying his addreſſes, inflates or ſwells his throat and breaſt. The female lays only two eggs, in the hatching of which ſhe is regularly relieved, for a few hours every day, by her mate. When ſhe delays to return, the male goes in queſt of her, and beats her back to the neſt; and, when *he* neglects *his* duty, he is, in his turn, obliged to ſubmit to the ſame ſevere chaſtiſement from the female. After the young are protruded, they receive no meat from either parent for three days: During that period, warmth is all they require; and the clutching them is a taſk, which the female takes entirely upon herſelf, never ſtirring from them, except a few minutes to collect her food.

The manner, in which this order of birds feed their young, ſufficiently diſtinguiſhes them from every other claſs of the feathered kind. They are granivorous; and the corns, with which they feed their young, are treaſured up, for ſome time, in their crops, where, by being moiſtened, and made more eaſy to be digeſted, they are rendered fit for their ſtomachs. On their return to the neſt, the young demand their food with importunity, when the parents, in ſucceſſion, eject it from their crop into their mouths.

The crop of the pigeon, in order to fit it for this ſingular operation, is of a peculiar ſtructure. It is larger than

than that of any other bird of the ſame ſize, and communicates with the lungs in ſuch a manner, that it can be inflated at pleaſure: Thoſe called croppers have a power of diſtending it, till it become nearly equal, in ſize, to the reſt of the body. When the grain, by means of the heat, and the milky fluid ſecreted in the ſtomach, begins to ſwell and macerate, the crop is proportionally dilated: Even then, however, the bird has the power of diſtending it farther, and of taking in air; and, on the expulſion of this new air by the mouth, the food is forced out along with it. The neſtlings are ready, open-mouthed, to receive this tribute of parental affection; and, as often as they perceive the old ones returning from an excurſion, they announce their wants with the moſt reſtleſs and craving importunity.

The external characters of the columbine genus are, a weak, ſlender, and ſtrait bill, with a ſoft protuberant ſubſtance, in which the noſtrils are lodged: Legs ſhort and red, with toes fully divided: On the ground, a walking pace; on wing, flights ſwift, and often continued to an immenſe diſtance. They inhabit almoſt every part both of the old and new continent.

The domeſtic pigeon, and all its varieties, derive their origin from the ſtockdove *, which, in its wild ſtate, is very rarely ſeen in this country. It is, in moſt parts of *Europe*, a bird of paſſage, which remains for a few months, and breeds, and then retires, as is conjectured, to *Africa*, to paſs the winter. In its natural ſtate, it is of a deep bluiſh aſh-colour: The breaſt is daſhed with a fine changeable green and purple: The wings are

*Buffon, Tome xvii. p. 498.

marked with two black bars, one towards their inſertion, and the other nearer the top: The back is white, and the tail barred near the end with black. In this ſtate, it builds in the holes of trees; from them it ventures to rocks and old walls; whence, by kind treatment, it is allured to the dovehouſe; and, by cloſe confinement, becomes, at laſt, familiarized to human ſociety. In proportion as the pigeon loſes its independence, it acquires greater degrees of fecundity. The ſtockdove, in his native woods, probably ſeldom produces twice in the year. During the whole of the winter months, ſelf-preſervation, and not the rearing of a poſterity, muſt require all his care, and employ every exertion. On the other hand, when properly domeſticated, and fully fed, ſo great is the fertility of the ſame bird, that fifteen thouſand, in the ſpace of four years, may be produced from a ſingle pair *.

The woodpigeon, the rockpigeon, and the dovehouſe-pigeon, are but different ſhades of the ſtockdove, in different degrees of ſubordination to man. The houſe-pigeon is the ſame bird in its laſt and moſt perfect ſtate of domeſtication, where it receives every tint and variety of hue that can be communicated to this race by human invention. So great is the multiplying of kinds, ſo various has been the mixture of different races, that a volume of deſcription, and another of painting, would not ſuffice to repreſent them all †.

* Vide Stillingfleet's Tracts.

† Vide Buffon, Tome xvii. p. 503.

Section VI.

The Meſſenger Pigeon.

Of all the varieties of the domeſtic pigeon, the *carrier*, or *meſſenger*, is the moſt remarkable for attachment to his native place, and affection for his female. From this peculiarity, it has been employed at *Cairo*, and in many parts of the eaſt, as a carrier; an office, for which it is well qualified, ſince it is capable, in the ſame ſpace, to travel three times farther than the fleeteſt horſe. At *Scandaroon*, where this meſſenger was employed to convey the ſpeedieſt intelligence to the merchants of *Aleppo*, of the arrival of ſhips, they faſtened a letter under its wing, and, after having fed it, deſpatched it to its native country. No ſooner does the bird find itſelf at liberty, than it raiſes itſelf to an amazing height in the air, and continues to direct its courſe, with unerring certainty, and at the aſtoniſhing velocity of forty miles in an hour and a half *. In our own country, theſe aerial meſſengers have been employed for a very ſingular purpoſe; being let fly at *Tyburn*, when the fatal cart is drawn away, to notify, to diſtant friends, the departure of the unhappy criminal †. If we may believe *Taſſo*, the *Egyptians*,

* Vide Ruſſel's Hiſtory of Aleppo, p. 66. and Thevenot's Travels, vol. ii. p. 73.

† Pennant's Brit. Zool. vol. i. 219.

tians had improved upon this idea, and had *relays* of meſſengers, to relieve each other; ſo that, by this means, intelligence of any kind could be conveyed, in a few hours, throughout the whole kingdom *.

It is pretended, that great uſe was made, in ancient times, of the carrier-pigeon, in opening a correſpondence between beſieged towns, and the armies that were to relieve them. Such was the intercourſe carried on between *Brutus* and *Hirtius* at *Modena*, in ſpite of every attempt of the beſieger, *Anthony*, to intercept their couriers †. In the time of the cruſades, when the moſt romantic enterpriſes were carried on in a romantic manner, we read of many important articles of intelligence having been conveyed by the pigeon. *Anacreon*, however, mentions another kind of warfare, and other ſieges, in which, in his time, this gentle, but uncertain courier, was probably, oftener employed; and that was, in carrying loveletters from lovers to their miſtreſſes. He ſeems indeed much better qualified for the ſervice of *Cupid*, than of *Mars*. In his beautiful little ode, addreſſed to his pigeon, that poet pays him many compliments on his affection and ſervices; and mentions, among the laſt, his having carried his epiſtle to young *Bathyllus* ‡.

There are many varieties of the domeſtic pigeon, or ſtock-dove from which it is derived, in foreign parts: Through all the warm and temperate regions of *America*, there are found many varieties. They are alſo ſeen in the *Eaſt Indies*, and in moſt of the iſlands of the *Indian Ocean*.

* Arioſto, Canto xv. l. 90.

† Pliny, lib. x cap. 53. Quid vallum, & vigil obſidio, atque etiam retia amne prætenta profuere Antonio, per cœlum eunte nuntio?

‡ Καὶ νυν ὅιας ἐκεινȣ
Επιςολας Κομιζω.

Anacreon, Ode ix.

Ocean. At *Amboyna*, there are two ſpecies, quite green *. Sir *Hanſe Sloan* has deſcribed a variety found in *Jamaica*, purple on the upper part of the body, and white below †.

The Ringdove ‡.

This ſpecies, like the ſtockdove, is a bird of paſſage; appearing in the Spring, and breeding twice during Summer, after which it takes its departure for warmer climes. It builds not in the holes, but on the branches of trees, and uſes, on this occaſion, only a few dry ſticks. Many unſucceſsful attempts have been made, in modern times, to domeſticate theſe birds. They have been hatched below a tame pigeon; they have been kept, when young, continually in the ſociety of man; but, after they were capable of flight, they have always availed themſelves of the earlieſt opportunity of regaining their natural haunts, in the woods. Ringdoves are not numerous in any country, though generally ſpread over the world. Their fleſh, which, when young, is excellent, holds out a ſtrong temptation to deſtroy them §. They are, by far, larger than the common pigeon: The length of one, at full ſize, is eighteen inches, and its breadth thirty. The head, back, and coverts of the wing, are of a bluiſh aſh-colour. The breaſt and the lower part of the neck are of the ſame hue, with a mixture

* Vide Briſſon, tome i. p. 145.

† Sloan's Hiſtory of Jamaica, p. 469.

‡ Le Pigeon Ramier Briſſon.

§ In ſome parts of Africa they are numerous, and delicate in their fleſh. Adanſon's voyage to Senegal.

mixture of red. The hind part of the neck is marked with a ſemicircular line of white; and the feathers above and below it, are of a changeable and gloſſy colour. The belly is of a dirty white; and the quill feathers are duſky. *Buffon* claſſes with the ringdove, the crowned pigeons of the *Eaſt Indies*, which are of the ſize of a Turkey. Several of them have been brought over alive to *France* and *Holland*; but they have never been known to lay there.

There are five different foreign birds that have been reckoned congenerous with the ringdove. Together with it, may alſo be placed, ſome of ſo near a reſemblance, that they can only be deemed varieties of the *European* ſpecies. Such are the ringdove of the *Moluccas* *; the triangular ſpotted pigeon of *Edwards*, which inhabits *Guinea*; and the pigeon of *Jamaica*, with a brown annulated tail. The *Founingo* of *Madagaſcar*, deſcribed by *Buffon*, ſeems alſo to be of this race, although of a ſmaller ſize, and of a blue colour †.

The Turtle.

THIS ſpecies is exceedingly ſhy and timid, breeding generally in the heart of large woods. It migrates in Autumn, like the other pigeons when wild. This dove is diſtinguiſhed by a beautiful circle of crimſon, ſurrounding its eye-lids. There is a black ſpot on each ſide of the neck, the feathers of which are tipped with white. The back is aſh-coloured, bordered with brown: The ſcapulars

* Briſſon, tome i. p. 148. † Hiſtory of Birds, p. 75

‡ La Turturelle, Briſſon.

ſcapulars are of a reddiſh brown, ſpotted with black. The belly is white; the ſides, and inner coverts of the wing, are bluiſh.

Turtledoves conſtantly aſſemble in flocks; they arrive, depart, and fly in company. In the ſhort ſpace of four or ſix months, which they remain here, they pair, neſtle, hatch, and rear their young, till they be able to accompany them at their departure.

For theſe purpoſes, they commonly reſide in ſome thick and gloomy wood, far removed from the haunts of men. The turtles are ſpread over almoſt the whole of the old continent, and over the new, as far as the iſlands ſituated in the *South Sea*; where they were ſo little acquainted with the human race, that they perched upon the ſhoulders of the ſailors, who firſt viſited theſe regions.

The turtles, as well as the other pigeons, are ſubject to great variety. They are capable of domeſtication, and can be made to unite with the domeſtic pigeon; from which illegitimate union, there ariſes a race of baſtards, ſtill capable of producing new varieties. This union is probably never formed in a ſtate of nature, but muſt be accompliſhed by man, by depriving them of their proper male or female, and availing himſelf of their exceſſive ardour.

The turtles are ſtill more amorous, than the common pigeon; the male of which, contents himſelf with turning round, and gracefully cooing before his female; whereas, the male turtle, whether in a wild or domeſtic ſtate, begins his courtſhip by ſaluting the female, and falling down on his breaſt frequently before her, till his bill touch the branch on which he is perched. His ſalutations are accompanied with tender ſighs; to which the female, for a while, appears inſenſible. Soon, however, an inward emotion

emotion begins to be expreſſed, by certain ſoft and plaintive accents, which eſcape from her. When once ſhe has felt the firſt acceſs of the flame, ſhe ſoon burns with the ſame ardour as the male, and even exceeds him in laſciviouſneſs; for ſhe purſues him, loading him with repeated careſſes, and provoking him to love, till ſhe begin to lay. At that period, ſhe finds herſelf obliged to devote to the care of her family, the time, which ſhe formerly wholly laviſhed on theſe amorous purſuits *.

In ſpite of the high reputation theſe creatures have obtained, by having been deemed proper emblems of love, there are well atteſted inſtances of their violating the fidelity and attachment which obtain between true lovers. Even when neither conſtrained nor corrupted by domeſtication, a female has been ſeen making different ſuitors happy on the ſame branch.

There are three conſtant varieties of the turtle in *Europe*; the *Common Turtle*, the *Ringed Turtle*, and the *White Turtle*. The manners and habits of all the three, are perfectly ſimilar. This is indeed the caſe with all pigeons, in general, however much they vary in their colours, or external form. They all eat and drink, without fully lifting the head: They fly in flocks together: Their voice is rather a loud murmur, or plaintive cooing, than an articulated ſound: They all lay about two eggs, and are capable of producing young, oftener than once in the ſeaſon.

There are eight different kinds of foreign birds, nearly allied to the turtle. They are found in different parts of *Aſia* and *America*.

* Buffon, tome xvii. p. 550. † Buffon ubi ſupra.

CHAPTER VI.

SECTION I.

ORDER V.—*The Paſſerine.*

AFTER the Gallinaceous and Columbine Orders, we proceed to the birds of the *ſparrow* kind, which are ſtill ſmaller in ſize, and comprehend all thoſe families, that lie between the thruſh and the wren. They are remarkable for their beauty and agility. They are continually in motion, and endowed with the powers of ſong. They enliven the retired and ſhady grove, by the melody of their voices. Thoſe birds, of the ſuperior order, that intereſt us by their uſefulneſs, or the fierceneſs of their habits, ſuch as the poultry, or rapacious kinds, have all harſh and ſcreaming voices. The plaintive accents of the pigeon alone excepted, whoſe cooing has a ſoothing tendency, their cries are all diſagreeable; whereas, thoſe beautiful little families we are now to review, inſinuate themſelves into our affections, by their delightful ſongs, their external beauty, and the familiarity of their manners.

Conſcious of enjoying the favour of man, they live with him in ſome degree of confidence; and, while the larger birds, from a ſuſpicion dictated by ill treatment, or ſuggeſted by guilt, fly to the depth of the foreſt, and dread the vicinity of man, theſe hop about the hedges, and ſides of the wood, ſeldom removing far from his habitations.

bitations. This alliance is indeed intereſted on their part; for it is only on the cultivated fields, and even around houſes and gardens, that they can find, in abundance, thoſe ſeeds and inſects, upon which they ſubſiſt. In the extenſive wilds, or in the depths of the foreſt, none of thoſe kinds of food, that are congenial to their natures, is to be found. "As we enter, ſays *Gold-*"*ſmith*, deeper into the uncultivated woods, the ſilence "becomes more profound: There are none of thoſe war-"blings, none of thoſe murmurs that awaken attention, as "you draw near the habitations of men; there is nothing "of that confuſed buzz, formed by the united, though "diſtant voices of quadrupeds and birds; but all is pro-"foundly dead and ſolemn. Now and then, indeed, the "the traveller may be rouſed from this lethargy of life, "by the voice of an heron, or the ſcream of an eagle; but "his ſweet little friends, the warblers, have totally for-"ſaken him."

The want of food is not the only reaſon, why the ſmall birds do not penetrate into the foreſt. They avoid theſe dreary retreats alſo, from the principle of ſelf-preſervation. Almoſt all the rapacious kinds, like robbers, hide themſelves in the depth of the woods; and, if they do not find a deſert there, ſoon make one: For the paſſerine tribes fly from their tyranny into the open fields; where, in the vicinity of man, they find that the moſt audacious of their enemies are afraid to attack them.

When the ſmall birds have taken up their reſidence in a particular grove or thicket, they ſeldom remove to any diſtance from the ſpot. The wren and the red-breaſt keep poſſeſſion of their own hedge, with a perſeverance that ſometimes proves fatal; and even thoſe birds of paſſage, that, at certain ſeaſons of the year, remove to a different part of the country, are remarkable for the very limited

r ange

range of their flights, during the months that they remain. Food is the great cauſe of all their motions, and, as ſoon as that is obtained, they reſume, in the vicinity of their neſt and of their young, their ſportive exerciſes or their ſong.

As food, however, is not found in equal quantities at all ſeaſons of the year, in every part of the country, a great number of the paſſerine tribes are obliged to remove in queſt of it, to very diſtant countries; and even thoſe, which remain with us the whole year, make periodical flights to a different diſtrict, at certain ſeaſons. Their vernal flights are probably occaſioned by the influence of love. They ſeem then to be in queſt of a ſecure retreat, where they may obey that call of Nature, and find a proper aſylum for their future progeny. The autumnal flights, on the other hand, which are moſt numerous, ſeem to conſiſt of many families, united by the parents, who are then conducting their offſpring from the inland parts to the vicinity of the ſhore, where they may be more amply ſupplied with winter food.

The buſineſs of bird catching, which ſupports a number of people in the vicinity of *London*, is founded on the annual removals of thoſe ſinging birds, which are termed birds of flight, in the language of that art. The metropolis affording a ready ſale for ſinging birds, this trade has long been eſtabliſhed in its neighbourhood; where it is carried on, at a great expence, and with ſyſtematical perfection. The wild birds begin to fly, as birdcatchers term it, in the month of October, and part of the preceding and following months. The different ſpecies of theſe birds, do not make their periodical flights exactly at the ſame time; but follow, one another, in ſucceſſion. The pippet begins his flight, every year, about

Michaelmas; the woodlark next ſucceeds, and continues his flight till towards the middle of October *.

It is remarkable, that, though both theſe ſpecies of birds are very eaſily caught, during their flight, yet, when that is over, no art can ſeduce them to the nets. It has never yet been found, what is the nature of that call, by which the tame birds can arreſt their flight, and allure them under the nets, at that particular ſeaſon, and at no other. Perhaps it is from their anxiety, to carry the tame birds along with them, that theſe may avoid the ſeverity of the winter. Perhaps, as the tame birds are males, it is a challenge to combat; or, it may be an invitation to love, which is attended to by the females, who are flying above, and who, in obeying it, inveigle the males, along with themſelves, into the net. If the laſt be the caſe, they are ſeverely puniſhed for their infidelity to their mates; for the females are indiſcriminately killed by the birdcatcher; while the male is made a priſoner, and ſold at a high price, for his ſong.

The flights of theſe birds begin at daybreak, and continue till noon. Autumn is the time, when the birdcatcher is employed in intercepting them on their paſſage. The nets are about twelve yards long, and two yards and a half broad. They are ſpread upon the ground, at a ſmall diſtance from each other, and ſo placed, that they can be made to flap ſuddenly over upon the birds that alight between them. As the wild birds fly always againſt the wind, the birdcatcher, who is moſt to the leeward, has a chance of catching the whole flight, if his call-birds be good. A complete ſet of call-birds, conſiſts of five or ſix linnets, two goldfinches, two greenfinches, one.

* Vide Pennant's Brit. Zool. 8vo edit. vol. ii. p. 330.

one woodlark, one redpoll; and, perhaps, of a bullfinch, a yellow hammer, a titlark, and an aberdavine. Theſe are placed, in little cages, at ſmall diſtances from the nets. He has likewiſe his flur-birds, which are placed within the net, and raiſed or let down, according as the wild birds approach.

This is not enough to allure the wild bird down: It muſt be called from the cages, by one of the call-birds which are kept there, and which have been made to moult early in the Summer, to improve their notes. *Pennant* obſerves, that there appears a malicious joy in theſe call-birds, to bring the wild ones into the ſame ſtate of captivity. After they have ſeen or heard the approach of the wild birds, which is long before it is perceived by the birdcatchers, the intelligence is announced, from cage to cage, with the utmoſt ecſtacy and joy. The note, by which they invite them down, is not a continued ſong, like what the bird uſes in a chamber; but ſhort *jerks*, as they are called by the birdcatchers, which are heard at a great diſtance. So powerful is the aſcendancy of this call over the wild birds, that, the moment they hear it, they, within twenty yards of three or four birdcatchers, alight on a ſpot, which, otherwiſe, would never have attracted their notice. After the fatal ſtring is pulled, and the nets are clapped over the unſuſpecting ſtrangers, ſhould one half of the flock eſcape, ſuch is their infatuation, that they will immediately after return to the nets, and ſhare the ſame fate with their companions; and, ſhould only one bird eſcape, that unhappy ſurvivor will ſtill venture into danger, till it be alſo caught; ſuch a faſcinating power have the call-birds over this devoted race.

All the hens that are thus taken, are immediately killed, and ſold for threepence or fourpence a-dozen. Their fleſh is ſo exquiſite, that they are regarded as a delicate

delicate acquiſition to the tables of the luxurious. The taſte for ſmall birds is, however, far from being ſo prevalent in *England*, as it is in *Italy*; and even the luxury of the *Italians*, will appear parſimony, when compared with the extravagance of their predeceſſors, the *Romans*. We are informed by *Pliny*, that *Clodius Æſopus*, a tragedian of *Rome*, paid no leſs a ſum, than ſix thouſand eight hundred and forty-three pounds, for a ſingle diſh of muſical birds; an immenſe tribute, ſurely, to be paid to caprice and gluttony *. The higheſt price given for theſe ſinging birds in *London*, is five guineas for each †; a ſtrong proof, how much more their ſong is reliſhed there, than their fleſh.

It is remarkable, that the female of no ſpecies of birds ever ſings; that talent is always the prerogative of the male. All the laborious functions fall to the lot of the tender ſex. "Their's is the fatigue of incubation, and "the principal ſhare in nurſing the helpleſs brood. To al-"leviate theſe cares, and to ſupport her under them, nature "has given to the male the gift of ſong, and all the little "blandiſhments and ſoothing arts, that can win affection, "or beguile trouble. Theſe he fondly exerts, even af-"ter courtſhip, on ſome ſpray contiguous to the neſt, du-"ring the time his mate is performing her parental "duties." To the female, this is not only a note of blandiſhment, but a pledge of her ſecurity. While her male continues on the neighbouring tree, to watch and ſing, ſhe remains in the neſt in full confidence that no danger is near; whereas, if his loud and ſportive ſtrains ſtop all

* Maxime tamen inſignis eſt in hac memoria Clodii Æſopi, tragici hiſtrionis, patina ſexcentis H. S. taxata; in qua poſuit aves cantu aliquo, aut humano ſermone, vocales. Plin. lib. x. cap. 51.

† Vide Pennant's Brit. Zool. ubi ſupra.

all on a ſudden, this is a certain ſignal of ſome dangerous intruſion, and a warning to her to provide for her eſcape.

Birds of this order, are, in general, much more attentive to the ſtructure of their neſts, than the larger kinds. As the ſize of their body is ſmaller, the heat of their neſt is in proportion, and muſt be aided by the warm ſubſtances, with which their neſt is uſually lined. As their eggs are much apter to loſe their heat, than thoſe of ſuperior ſize, theſe birds are proportionably more aſſiduous during incubation. The male conſtantly ſupplies the place of his female, and thus prevents the admiſſion of the cold, which would prove fatal to his progeny. The habitation of theſe birds is no leſs cunningly concealed, than it is artfully built. Whether on the ground, or in a buſh, it is always ſo covered, that it can hardly be ſeen ; and, the better to eſcape obſervation, the owners never come out or go in, while any one is in view.

In all animals, the amorous inſtinct is ſuppoſed to be the foundation of courage. The one endowment is conſtantly found proportioned to the other. The males generally feel moſt ſtrongly the ardour of love ; and they, accordingly, are moſt diſtinguiſhed by courage. The paſſerine tribes are equally conſpicuous for gallantry and for war. However contemptible their hoſtilities may appear to the larger animals, they are often fatal to one of the combatants. Two ſparrows often contend for the ſame female, till the death of one of the antagoniſts decide the victory, and determine the prize. The redbreaſt defends his little territory, with the valour and intrepidity of a veteran.

The union of the male and female, which is pretty faithfully obſerved, while the young are incapable of providing for themſelves, ſeems entirely at an end, the moment

the young family is diſperſed. The parent pair ſeem then as indifferent to each other, as if they had never been acquainted. Each provides for itſelf, in the Winter; and, in the Spring, unmindful of former connections, goes in queſt of a new companion. At that period, thoſe birds, that are of the ſame age, commonly aſſociate together. The older females firſt feel the acceſs of deſire; and the older males, being beſt able to ſatisfy it, drive away the young ſuitors. After they are provided for, thoſe next in courage and deſire, ſucceed them in the field of love, and obtain partners ſuited to their merit. The youngeſt and weakeſt come laſt, as their inclinations are lateſt in appearing. There are, however, many of both ſexes, that remain unprovided for, from not meeting with each other. Whether each ſpecies of this order be true to its own ſpecies, or mix with others, naturaliſts have not fully aſcertained. *Addiſon*, in a beautiful *Latin* ode, celebrates the chaſtity of their manners *, and denies that they ever admit the careſſes of a different tribe. *Buffon*, on the contrary, and with much appearance of juſtice, ſuſpects them of incontinency †. He ſuppoſes, that the infinite varieties of the ſmaller birds ariſe from the mixture of different kinds. Of the eagle, the oſtrich, and caſſowary, there are but few varieties; and no art will make one ſpecies procreate with a different one. New ſpecies, however, have been produced among the paſſerine tribes, from the union of the bulfinch and canary; from the linnet and the

* Vide Spectator.

† Qui ſait tout ce qui ſe paſſe en amour au fonde du bois? Qui peut nombrer les juiſſances illegitimes entre gens d'eſpeces differentes? Buffon, tome xvi. p. 22.

the lark. Nor are theſe baſtard tribes barren, like the mules; but are capable of procreation, and adding to the variety of this order. There are many different kinds, whoſe ſhape and manners ſo nearly reſemble each other, as lead us to believe, ſuch combinations are formed by nature herſelf, in caſes of neceſſity. What happens in domeſtication to the cock, the turkey, the pheaſant, and the common hen, may happen alſo in a ſtate of freedom. We know not what paſſes in the depths of the woods; nor, by what ſecret, but illicit joys, Nature may conſole thoſe birds, who are deprived of an aſſociate of their own kind.

The ſtrong billed ſmall birds feed upon grain. They live upon the property of the huſbandman, for which, as *Goldſmith* remarks, they pay him with their ſongs. They are not, however, without their uſe; for they often tranſport ſeeds from one diſtrict to another, and thus diſſeminate and vary the vegetable productions of the earth. The ſlender billed tribes feed moſtly upon inſects or worms, and are exceedingly uſeful in deſtroying part of thoſe ſuperfluous beings, with which the atmoſphere and the ſurface of the earth teems, often to the ruin of ſeeds and tender plants. Their voice is ſuppoſed to be ſtill more ſoft and delicate, than that of the former kind. Even the granivorous birds of this claſs, while young, live upon inſects. During the three firſt days after their excluſion from the ſhell, they require little or no food. The parents, however, ſoon perceive by their loud and plaintive noiſe, and their gaping, that they feel approaches of hunger; and they are eager to gratify their wants by a plentiful ſupply. "In their abſence, ſays "*Goldſmith*, they continue to lie cloſs together, and che-"riſh each other by their mutual warmth. During this "interval alſo, they preſerve a perfect ſilence, uttering

"not the ſlighteſt note till the mother returns. Her ar-
"rival is always announced by a chirrup, which they per-
"fectly underſtand, and which they anſwer all together,
"each petitioning for its portion. The parent diſtributes
"a ſupply to each by turns, cautiouſly avoiding to gorge
"them, by giving them often, and but little at a time.
"The wren will in this manner feed ſeventeen or eighteen
"young, although perfectly in the dark, without paſſing
"over one of them." When they are fully fledged, and led out by their parents a few days ſucceſſively, during which they are taught to pick their food, and to fly, they become totally independent of theſe parental aids.

Plate XXII

TURTLE

POMPADOUR PIGEON

ROCK PIGEON

STARE

M. & F. BLACK BIRDS

Section II.

Genus XXXIX.—*The Stare* or *Starling* *.

The *Swediſh* Naturaliſt enumerates only five ſpecies belonging to this genus: To theſe *Buffon* adds ſix varieties from *America*, whoſe affinity to the *European* kinds does not ſeem perfectly aſcertained. The ſtares are diſtinguiſhed by a ſtrong appetite for ſociety. During the winter months, theſe birds croud together in ſuch cloſe and well arranged battalions, that no bird of prey dares to penetrate their ranks †. This manner of flight, that defends them againſt the rapacious birds, renders them a more eaſy prey to the wiles of the birdcatcher, who diſpatches among them a number of birds of their own kind, each having a glued thread tied to its leg, by which ſome of them are entangled, and brought to the ground.

Their love of ſociety not only prompts them to aſſociate with birds of their own ſpecies, but alſo with others nowiſe allied to their tribe. In ſpring and Autumn, they are frequently ſeen in company with crows and choughs, and ſometimes even flocking with pigeons. It is, however, principally in the night that the ſtarlings unite in very large companies, as if to put themſelves in

* Sturnus. Lin. L'Etourneau, Buffon.

† Buffon, Tome xviii. p. 179.

ſufficient force to brave its dangers. Then they aſſemble in a flock, and after various evolutions, ruſh with impetuoſity into the midſt of the thicket, where they ſpend the evening with copious chattering, till darkneſs put an end to their converſation. In the morning, about day-break, this noiſy conference is reſumed, till they depart or ſeparate to ſearch for food.

The pairing ſeaſon among theſe birds commences in March; but as in other inſtances, ſo here that tender union is accompliſhed by force, and decided by combat. The females have no choice; they ſtand at a diſtance, the meretricious ſpectators of the battles they occaſion, and tamely yield themſelves up, as the reward of ſuperior bravery or ſtrength. After fecundation, they lay four or five eggs, of a pale green, in a neſt conſtructed in the hollow of a tree, in a ruinous edifice, or cliff of a rock.

They are ſeldom at the trouble of building for themſelves, but generally take poſſeſſion of the deſerted manſion of ſome other birds. Even the repairs that may be neceſſary, are carried on in a very ſlovenly manner: A few dried leaves, or piles of withered graſs, overlaid with moſs, are all that the Starling deems neceſſary for the accommodation of its family. When the neſt is in a dovehouſe, as ſometimes is the caſe, or in the hole of a rock, ſtill leſs art is employed in conſtructing it.

The old ones, as well as the young, live upon *inſects* and worms, and their fleſh is ſo remarkably bitter, as to be ſcarce eatable. To this kind of food they add corn, and every kind of garden fruit, as often as their reſidence happens to be in a cultivated country. Raiſins and cherries are ſuppoſed to be the beſt correctives of the bitterneſs

bitterneſs of their fleſh, which is occaſioned by the exceſſive quantities of bile fecreted in their livers.

Their docility, and the beauty of their plumage have rendered them great favourites. They have been often taught to ſpeak *; and, as muſicians, their attainments are above mediocrity.

Buffon has aſſerted, on the authority of *Pliny* †, that the Starling learns *Greek* and *Latin*, as well as the modern languages. This may be the more eaſily admitted, ſince it is to be preſumed they can make but ſmall proficiency in any. It muſt be confeſſed that the muſcles and organs of the throat ſeem flexible, and proper for every kind of articulation. Their vocal powers are, however, moſtly acquired by education, and, in their domeſtic ſtate, they ſupport the muſical character much better than in the wild. The feathers on the head, neck, and upper part of the back, are black, varied with a beautiful green and purple, according as they are oppoſed to different lights; the form of the feathers in general, being long and narrow, tipped at the point with ſmall ſpots of yellow or white.

There is in the productions of nature a continual tendency to variety, which is clearly exemplified in moſt of the tribes of birds, and which the diſtinct, and almoſt inſulated characters of the Starling have not been able to defeat. There are ſome of this genus black, others white, and others ſtill, which diſplay the various mixture of thoſe two colours. White and black Starlings are ſaid to have been found in the ſame neſt ‡.

Beſides

* Vide Britiſh Zoology, p. 231.

† Habebant et Cæſares juvenes, item ſtarnum, luſcinias Græco atque Latino ſermone dociles; præterea meditantes in diem, et aſſiduè nova loquentes longiore etiam contextu. Plinii, Lib. x. cap. 42.

‡ Vide Willoughby's Ornithology.

Beſides theſe varieties of the Starling found in *Europe*, there are other birds of foreign extraction, that are commonly referred to this genus, as the pied Starling of the *Cape of Good Hope*. The black and white, which are the only colours of this bird, are diſtributed in a manner ſimilar to thoſe of our pies. Its bill is thicker and longer, than that of the *European* Starling, and its diſtinguiſhing marks are two large white ſpots of a round form, on each ſide of the head: In the middle of theſe, are placed the two ears.

The ſtarlings of *Luiſiana*, belong to a ſpecies, of which vaſt flocks are obſerved in the interior regions of *North America*. By their manner of flight, as well as their ſhape, they indicate their affinity to our *European* kinds. The lower parts of the body are yellow, the upper a browniſh grey; and they are diſtingniſhed by a large dark coloured ſpot upon the breaſt. There are various other birds allied to the ſtarling, in *Mexico*, and in ſeveral parts of *South America*. The *American* ſtarlings are inferior to thoſe of *Europe* in the powers of ſong; but an ingenious naturaliſt has made a good apology for this defect, by alleging that as all the *American* birds have hoarſe voices, and as the Starling only acquires his muſic by imitation, he muſt, of courſe, in *America*, be a harſh performer. He even inſinuates that our ſtarling, were he tranſported among theſe ſcreaming tribes, would lay aſide his vocal notes, and join in their gratting ſtrains.

Section III.

Genus XL.—*The Thruſh* *.

Under this numerous tribe are comprehended, the *miſſel-bird*, the *fieldfare*, the *throſtle*, or *mavis*, as it is called by old writers †, the *redwing*, the *blackbird*, the *ring* and *water ouzel;* together with a vaſt crowd of foreign birds, but imperfectly known. *Briſſon*, that accurate, but dry nomenclator, enumerates ſixty-four different ſpecies of thruſhes, and nearly as many varieties. The *French* term the birds of this genus, that have ſpeckled and variegated plumage, *grives*; and thoſe of more uniform hue, they call *merles* ‡. In the thruſh tribes, the male and female are pretty nearly of the ſame ſize: They are generally ſubject to a variation of colour, in different ſeaſons of the year. Their outer toe is connected with the middle, by a membrane, as far as the firſt joint; Their bills are denticulated towards the point, and none of them feed upon grain, which is probably too hard for their ſtomachs to digeſt. They are properly baccivorous; but to this food they add inſects and worms; hence they are frequently ſeen ſcratching the ground, eſpecially after rain, when theſe animals come to the ſurface.

Among

* Turdus, Lin. Le merles le grives, Buffon.

† Willoughby's Ornithology, p. 188.

‡ Vide Briſſonii Ornithol.

Among the *Romans*, ſome ſpecies of the thruſh were deemed exquiſite food * ; and, to procure a ſupply of it, no labour or expence was ſpared by that ſenſual and luxurious people. They conſtructed large aviaries, fit for the reception of many thouſands of theſe devoted creatures, along with equal numbers of quails, ortalans, and other birds reckoned delicate eating. Such incredible numbers of theſe aviaries were erected in the vicinity of *Rome*, that their dung was employed as a manure for the fields, like that of the dovehouſes with us †.

In theſe aviaries, the birds enjoyed not the ſame liberty with our dovehouſe pigeons ; for they were never allowed to eſcape, and, by conſequence, they ſeldom laid, or produced young. As, however, they were provided with abundance of well-choſen food, they readily fattened, to the great profit of the proprietor. Their ordinary price was about two ſhillings a-piece ; but, about the time of a public triumph, or any grand feſtival, they far exceeded that ſum ‡. Theſe aviaries were large vaulted buildings, ſupplied with a number of joiſts, upon which the birds might perch. They were but obſcurely lighted, ſo that the priſoners might never ſee the fields, the woods, or the wild birds, fluttering at their liberty ; images, which could not fail to excite a regret for their loſt freedom, and to prevent them from fattening. Slaves, ſays *Buffon*, ſhould never ſee too clearly ; and they took care, that theſe ſhould only be able

* Inter aves turdus, inter quadrupedes gloria prima lepus. Martial.

† Ego arbitror præſtare, ſtercus ex aviaris turdorum & merularum &c. Varro de re ruſtica, lib. i. cap. 38.

‡ Vide Columella, lib. viii. cap. 10.

able to diſtinguiſh the different objects that were to ſupply their wants *. They were fed with millet, and a ſort of paſte, made up of bruiſed figs and meal; to theſe were added, ivy and myrtle berries, and every thing that could give a reliſh and ſucculency to their fleſh. They got water from a ſmall ſtream, that ran acroſs the aviary. For about twenty days before they were killed for eating, they increaſed their quantity of food, and took care, that it ſhould be of a more nutritive quality. So far was their attention to this buſineſs carried, that they made thoſe that were fat, and ready for being taken, paſs gently into a ſmall chamber adjoining the aviary, where they cut off all communication between them and thoſe that were left, that the latter might not be diſturbed by catching them. With theſe they tried every method, to keep up the illuſion of liberty: They, from time to time, lined the walls of the aviary with green branches and leaves, that the birds might ſtill fancy themſelves in the midſt of the grove. Thus, they were accuſtomed, by degrees, to captivity; they were ſlaves, kindly treated by their maſter, becauſe he underſtood his own intereſt. This account of *Roman* epicuriſm, is atteſted both by *Columella* and *Varro* †; and, from their relations, *Buffon* has compiled a very curious hiſtory of the ancient aviaries of the *Romans*.

An improvement upon this practice of the *Romans* is ſaid to be invented in modern times, and applied to practice in ſome provinces of *France*; where they faſten earthen pots among the branches of trees, where the thruſhes frequent. In theſe, the birds find a convenient ſhelter

* Tome xviii. p. 271.

† Vide Colum. & Var. de re Ruſtica locis jam citatis.

from the weather, without loſing their liberty; and hence they ſeldom fail to prefer them to neſts of their own conſtruction. Partly from the ſecurity afforded to the young in theſe pots, and partly from the great ſaving of labour to the parent birds, who are thus enabled to bring up two families every year, the thruſhes have been found to multiply greatly under this mode of treatment. When the birds are not thus aided by the art of man, their neſts are finiſhed with great difficulty and labour. Outwardly, they are conſtructed with moſs, ſtraw, and dried leaves; and, in the inſide, they are overlaid with a thick plaiſter of baked clay and hair. Some kinds are not even ſatisfied with this; but garniſh the inſide ſtill farther with feathers of various kinds *.

The thruſhes are, in general, grave and melancholy. Their innate love of liberty is not eaſily overcome by domeſtication. Seldom are they ſeen to fight, ſport, or play with each other, in their natural ſtate, and ſtill leſs in a ſtate of captivity, which they never reliſh. Some of theſe birds, however, become excellent ſongſters, by education; and the throſtle has, in ſome inſtances, added to the talent for muſic, that of ſpeech. Such, at leaſt, is the account given by *Pliny* of a thruſh tamed by the Empreſs *Agrippina* †.

* Vide Buffon ubi ſupra.

† Agrippina conjux cl. Cæſaris, turdum habuit, quod nunquam antea, imitantem ſermones hominum, lib. x. cap. 43.

The Miſſelbird *.

THE *miſſelbird*, which ſtands at the head of this numerous liſt of thruſhes, is diſtinguiſhed from them all in ſize, being the largeſt *Britiſh* bird that has any harmony in its voice. All the larger kinds have a ſcreaming or croaking note, and therefore they are properly introduced by *Thomſon*, into the concert of the grove, as if to ſupply a kind of baſs, or chorus, to the ſmaller warblers †. The miſſelbird, which is the largeſt of the ſongſters, diſcovers its affinity to the ſuperior tribes, by the harſh ſcreaming ſound it utters, when moved by anger or fear. It feeds upon holly and miſſeltoe-berries, and inſects, and may be regarded as ſovereign of the grove; for it drives away from the coppice all the inferior ſpecies of the thruſh kind.

The ſpecies of the redwing and the fieldfare do not breed in *Britain*, where they reſide only a few months, during the depth of Winter. They are ſuppoſed to breed in *Norway*, *Auſtria*, and *Poland* ‡; where their muſical powers are employed during courtſhip, and the neſtling ſeaſon. They are ſhy, watchful, and ſilent, while with us, and ſeem only to endure our climate when forced away by the exceſſive rigour of their own.

The *ſongthruſh*, is that bird, which, in *France*, has given the name to this tribe. It is, in that country, migratory; but remains in *England* during the whole year. It arrives in *France* commonly about the time of the

* La Draine. Buffon.

† Seaſons, Spring, line 636.

‡ Vide Klein's Nat. Hiſt. p. 178.

vintage; when it frequently intoxicates itſelf with the juice of the ripe grape; a circumſtance, from which it has, in that country, obtained the name of the *vine-thruſh*. This bird is remarkably prolific, producing, in ſome countries, no leſs than three different families in one ſeaſon. Of all the thruſh kind, it is the moſt accompliſhed ſinger; and, feeling frequent returns of the amorous paſſion, which is the ſource of all the harmony of the grove, it is ſaid to ſing during three quarters of the year. When it begins to warble, it perches upon a high branch of one of the talleſt trees, from which it pours forth its melody for hours together. Its ſong is a compound of ſeveral notes, which it has ſkill artfully to combine. From this ſuperior compaſs and modulation of voice, it has, in many countries, as well as in this, obtained its name.

This ſpecies of thruſh is very widely diffuſed over *Europe*. It is frequent *in Scotland*, *England*, *France*, *Germany*, and *Sweden* *. Although timid, and apparently poſſeſſed of cunning, yet it does not avoid the ſnares that are laid for it: There are ſome diſtricts in *Poland* †, where ſuch numbers are caught in ſnares, that they are exported to other countries. The quality of the fleſh of this, as of all kinds of birds, depends greatly on the food upon which it ſubſiſts. At one ſeaſon, therefore, it may be palatable, and bad at another. It ſeems to be no where in ſuch requeſt at preſent, as it was among the ancient *Romans*. There are ſeveral varieties of the ſongthruſh in *Europe*, three or four in *America*.

Next to the miſſel bird, the *fieldfare* is the largeſt of the thruſh tribe. It is of an aſh-colour, varied on the upper

* Fauna Suecica, p. 72.

† Rzaczinſki Auctuarium, p. 425.

upper parts of the body with black: The bill is yellow; and the legs of a deep brown*. This ſpecies forms a part of that unfortunate race of warblers, which are the annual victims of the birdcatching art. Theſe birds make two viſits to this country in the year, the one in December, and the other in the beginning of Spring; and, as the birdcatchers only attempt to take them during their paſſage, they, by this means, run a double hazard of becoming ſlaves. They live upon the fruit of the hawthorn, and almoſt every ſpecies of berry, during the Winter, when they are ſeen in flocks, ſometimes of a thouſand, on the ſame field.

They are more eaſily tamed than the other thruſhes; but reward not, with their ſong, the labour beſtowed on their education. *Linnæus* mentions an inſtance of one that was tamed in the houſe of a wine-merchant, that became ſo familiar, as to drink wine out of the glaſſes upon the table. The effects of this liquor made it throw its feathers, which were again renewed, after it had been confined, for a while, in the cage, and had been obliged to lead a more temperate life †.

The numbers, as well as the appearance of theſe birds in this country, ſeem to be determined by the rigour of the ſeaſon; and they appear to have a preſentiment of its ceſſation; for, as long as they are heard in the field, the inhabitants of the country conclude, that the ſeverity of the winter is not yet paſt. Their Summer reſidence is in the North, where they feed upon the juniper-berries, from which their fleſh contracts that bitterneſs, on account of which ſome have thought it agreeable.

The

* Vide Buffon, a l'article Litorne, tome xviii.. p. 301.

† Fauna Suecica, p. 71.

The young of the miſſelbird, when put into the neſt of the fieldfare, are adopted by the female, and reared with the ſame care as her own; from which it has been raſhly concluded, that a mixed race might be procured by the union of theſe two ſpecies. No ſuch breed, however, has ever been obtained from the cohabitation of the duck and the hen, though many families of the former have been reared by the maternal cares of the latter. Of the fieldfare there are ſome varieties in *Europe*, as the *white-headed* and the *ſpotted* *; and, in *America*, there have been two new ſpecies diſcovered, the one an inhabitant of *Canada* †, and the other of *Cayenne*.

The Black Ouzel ‡.

The *blackbird*, which we have ſo termed, from the colour of its plumage, has often been tamed, on account of its ſong. Its voice, however, is too loud and harſh for any place but the woods. It is ſaid, indeed, to be capable of great improvement, from a faculty which it poſſeſſes, of imitating the ſounds of any muſical inſtrument §. Some, that have been well educated, ſing part of an air very juſtly. We have not, however, witneſſed any inſtance of their being able to retain a tune of any length or variety of notes.

In their manners, theſe birds differ conſiderably from the thruſhes: They neither travel, nor aſſociate together

* Briſſon, tome ii. p. 218. † Idem, tome ii. p. 225.

‡ Le Merle, Buffon. La Grive, Briſſon.

§ Olina Uccellaria, p. 29.

together in flocks ; but, though more ſhy towards each other, they are leſs ſo with regard to man. They are eaſily tamed by him, and reſide, from choice, near his habitation. Endowed with a piercing eye, and accuſtomed to be continually on the watch againſt an enemy ſo near, they have acquired great credit for their cunning. On experience, however, they have been found more reſtleſs than artful, rather timid than diſtruſtful ; for there is hardly any kind of ſnare in which they may not be taken, provided the hand that lays it can render itſelf inviſible *.

When the blackbird is encloſed in the ſame cage with other ſongſters, of inferior ſize, his reſtleſs habits are changed into an overbearing petulance : He inceſſantly purſues and torments his fellow-priſoners. He, therefore, ſhould never be placed in the ſame apartment with ſmaller birds, nor allowed to enter a company, to which his behaviour is ſo rude.

It has been aſſerted by the ancient naturaliſts, that the blackbird never moults, becauſe he is heard ſinging during Winter, a period when the other birds are ſilent. Nature, however, ſeldom acknowledges any race of privileged beings, which ſhe exempts from her general laws. The more accurate obſervation of the moderns, has diſcovered the moulting ſeaſon of this bird, which is at the end of Summer. Then they are ſeen, along with their young, ſometimes almoſt half naked.

On the *Alps*, and in ſome cold countries, the blackbird is ſaid to be ſometimes ſeen all over white : With us the female and the young are of a duſky brown. So early do birds of his ſpecies undertake the buſineſs of procreation,

* Buffon, tome xviii. p. 331.

that the firſt brood but rarely ſucceeds, on account of the inclemency of the weather. They feed upon every kind of fruit and inſect, and accommodate themſelves to all climates. Though found in almoſt every country, they are conſtantly ſtationary in the places where they reſide.

The *ring* and *water ouzel* are conſidered as two different ſpecies of the blackbird. The *French* name *merle* is applied to all the three. The middle of the breaſt of the ring-ouzel is beautifully ornamented with a creſcent of pure white; the horns pointing to the hind part of the neck. The water-ouzel is the moſt retired of this ſolitary tribe: It is commonly ſeen ſingle, hopping by ſmall brooks, or ſteep banks. It lives upon inſects, and ſmall fiſhes; and, though unprovided with webbed feet, will dive in purſuit of them *. But the moſt beautiful of this tribe is the *carnation*, or *roſe-coloured ouzel*, which, *Linnæus* informs us, is an inhabitant of *Lapland* and *Switzerland*. One or two of theſe birds have been ſeen in *Britain*, where they were ſuppoſed to have ſtrayed in their migrations from *Lapland*, to the ſouth of *Europe* †. The breaſt, belly, back, and coverts of the wings of this beautiful ſpecies are of the colour of a roſe of two tints, of which the one is pale, and the other more deep. The head, neck, wings, and tail, ſhine with different reflections of purple and green.

* Willoughby's Ornithology, p. 149.

† Edwards, vol. i. plate 20.

The Mocking Bird *.

AMIDST the vaſt number of foreign birds, which are uſually claſſed with the thruſhes, the *American mocking bird* is the moſt remarkable, as it forms a ſtriking exception to the general character, which naturaliſts have given of the birds of the new world. It is allowed by all travellers, that the rich, lively, and brilliant hues of the feathered race, in that continent, are ſtrongly counterbalanced by their harſh, monſtrous, and diſagreeable notes. The mocking bird, however, is repreſented as the moſt melodious of all birds, the nightingale itſelf not excepted. To the charms of its natural ſong, it adds the wonderful faculty of counterfeiting the notes of every bird in the foreſt. Far from ridiculing the ſongs which he repeats, he ſeems only to imitate, in order to improve them, and to perfect and increaſe his own powers, by exerciſing them in every poſſible manner. The mockng bird not only ſings with taſte, but with action and vivacity: He accompanies every note, whether natural or acquired, with correſponding geſtures of the body. If the air he warbles be briſk and lively, he beats time by the rapid and fluttering motions of his wings. If his voice, from a loud and full tone, die away, by gentle cadences, into a perfect ſilence, more charming than melody itſelf, he is ſkimming, at the ſame time, above his tree, gradually leſſening the undulations of his wings, till, at laſt, he ſeem to reſt ſuſpended and motionleſs, on the boſom of the air †.

* Le Moqueur, Buffon.

† Buffon, tome xviii. A l'article moqueur, p. 326.

With all theſe qualifications that endear him to man, the mocking bird is of a very ordinary appearance, compared with the other tenants of the *American* woods. The upper parts of the body are of a browniſh grey, and the breaſt and belly white. Under this plain appearance, which has neither luſtre nor variety of colours, he amuſes or deceives every animal in the foreſt.

It ſeems to ſport with the hopes and fears of the ſmall birds; at one time alluring them by the call of their males; and then terrifying them, after their approach, with the ſcreams of the eagle *. As there is no bird which it cannot imitate; ſo there is none that it has not, at times, deceived by its call. It is found in *Carolina*, *Jamaica*, *New Spain*; and, in general, inhabits moſt of the warm or temperate climates of *America*. It is fond of the vicinity of man, and is eaſily domeſticated. It perches on the trees around the planter's houſes, and ſometimes upon the chimney tops, where it remains all night, pouring forth the ſweeteſt, and moſt various notes of any of the feathered tribes.

The Thruſh of the Phillipine Iſles †.

This bird is a noted deſtroyer of inſects, among which his devaſtations are as extenſive, as the cravings of his voracious appetite are inſatiable. He mounts, like the crows and magpies, upon the backs of cattle; and ſearches, among their hair, for thoſe vermin, that torment them in that burning climate. The horſes, cows, and ſwine, finding

* Goldſmith's Natural Hiſtory, vol. v. p. 325.

† Le Martin, Buffon.

finding themſelves relieved by the labours of theſe birds, readily admit them upon their backs, to the number of ten or twelve at a time. Leſt, however, their deliverers ſhould, in their turn, become their tormentors, by tearing their ſkin and fleſh, (for they eaſily accommodate themſelves to this kind of food) the backs of the cattle are defended by a kind of varniſh from the attacks of theſe animals.

Theſe thruſhes differ widely, in their manners, from every *European* ſpecies. They are, in reality, carnivorous animals; but wiſely meaſuring their ſtrength, they never openly attack any creature of ſufficient force to reſiſt them; they confine themſelves to the inſects, that become an eaſy prey to their voracity.

The locuſts are a favourite food of theſe birds, and they have rendered themſelves almoſt neceſſary in ſome parts of *India*, by deſtroying that inſect. From the ſervices they have rendered the inhabitants of the eaſt, by deſtroying that ſcourge of induſtry, their hiſtory, ſays *Buffon*, ſhould be recorded with that of man *.

Formerly the iſle of *Bourbon* had almoſt been laid waſte by the depredations of the locuſts, when the inhabitants bethought themſelves of ſeriouſly declaring war againſt theſe deſtroyers. In a preparation for this, they brought from *India* ſeveral pairs of theſe thruſhes, to multiply in the iſland, and to ſerve as auxiliaries in their campaigns againſt this formidable enemy. The ſcheme ſucceeded, and the coloniſts promiſed themſelves effectual aſſiſtance from theſe birds. But they were ſoon obſerved to flock, in great numbers, to the new-ſown fields, and to ſcrape them, as if they were in ſearch of the ſown grain. An alarm was ſoon

* Tome xviii. p. 424.

ſpread over the iſland to their prejudice, and they were traduced as pilferers. A proceſs was inſtantly commenced againſt them in form; in which it was alleged, by the counſel for the defendants, that, though they ſcraped up the freſh mould, inſects, and not grain, were the object of their ſearch; and that they ought, therefore, to be deemed the benefactors of the colony. After the cauſe had been ably pleaded on both ſides, the birds were prohibited, by a ſolemn decree of the governor and council; and, in a few hours after the ſentence of outlawry was pronounced againſt them, there was hardly a ſingle pair left alive in the whole iſland.

This ſudden act of vengeance was followed by as ſpeedy a repentance. The locuſts now increaſed, without any moleſtation, and renewed their devaſtations; and the extirpation of the thruſhes was now regretted by all; they were regarded, as their only protectors from this ſcourge of the huſbandman. The governor, in compliance with the wiſhes of the people, brought a new colony of theſe birds from *India*, eight years after the fugitation of their predeceſſors. They were received with joy by the people; and their increaſe and preſervation became an affair of ſtate; for the thruſhes live there under the protection of the laws.

The Roſe-Coloured Ouzel *.

Our account of the thruſhes ſhall be concluded with this rare, but beautiful ſpecies, which has been ſeen on its paſſage, in various parts of *Europe*, and ſeems, as yet,

* Le Merle couleur de Roſe, Buffon.

yet, to be but imperfectly known. *Linnæus* has aſcertained its uſual places of reſidence, which are *Lapland* and *Switzerland*; but has given no information, with regard to its food, manners, or migration *.

Theſe birds are occaſionally ſeen in *France*, *Spain*, and *England*, where a few have been taken by the bird-catchers. They are extremely fat, and are ſaid to be good eating; but their beauty ſeems to be their moſt remarkable attribute. The male is diſtinguiſhed by the black feathers of the head, neck, wings, and tail, which dazzle the eye with different reflections, changing alternately from green to purple. The belly, the back, and coverts of the wings, are of a beautiful carnation colour, of two tints, the one deep, and the other more pale. This ſhewy mantle is yet farther adorned by ſmall black ſpots, which are ſcattered irregularly over the body of the bird. The length of this bird is eight inches, and its breadth, when on the wing, is fourteen.

* yſtema Naturæ, edit. x. 170.

Section IV.

Genus XLI.—*The Chatterer* *.

Brisson has ten ſpecies ot the *chatterer*, independent of the *Bohemian* bird of that name, which he places among the thruſhes. His birds are moſtly *American*, and are diſtinguiſhed by all the brilliancy peculiar to the birds of that continent. Nature ſeems to have reſerved for them ſome of her choiceſt colours, which ſhe has diſtributed with no leſs taſte than proportion. The ſweeteſt mixture of red, purple, orange, white, and black, compoſes the various ſhades of their inimitable dreſs. Very little is known of the manners of theſe birds: They are wanderers, which make very ſhort migrations: They frequently approach the houſes of the natives of *South America*, and commit devaſtations on their rice-fields †.

To this claſs, *Linnæus* adds the *Bohemian* chatterer, an *European* bird, which is diſtinguiſhed from every other, by the red appendages which terminate the middle feathers of each wing. It is not eaſy to determine the native country of this bird: It is only a paſſenger through *Bohemia*, as well as through all the countries on the north of *Germany*. *Linnæus*, upon apparently good information,

* Ampelis Lin. Cotinga Briſſon.

† B u ffon, tome xix. p. 440.

Plate XXIII

CROSS-BILL

CHATTERER

GROS-BEAK

PINE GROS-BEAK

YELLOW HAMMER

SNOW BUNTING

tion, aſſerts, that it neſtles and breeds in thoſe extenſive countries to the north-eaſt of *Sweden*: Others ſay, that it builds in the holes of rocks, through the immenſe deſerts of *Tartary*. But, whatever country be their home, it is certain, that they make excurſions through the whole of *Europe*, like the barbarous nations that formerly iſſued from the ſame northern wilds, and overſpread the *Roman* empire. Some ſay, that they paſs from *Bohemia* into *Auſtria*, once every three or four years, in the beginning of Autumn; and that they again return, towards the end of the ſame ſeaſon *. A few ſtrayed ones have ſometimes been found in *France* and *England*; but neither of theſe countries ſeems to lie immediately in their rout. In theſe countries, where they appear but ſeldom, they are regarded as the unwelcome harbingers of ſome ſad calamity †.

Linnæus has with great propriety ſeparated this bird from the family of thruſhes, in which it is ranked by *Briſſon*: For, beſides the diſtinguiſhing peculiarity of its tail, the bird ſeems to be modelled upon proportions entirely different. The bill is ſhorter and more hooked, than in the birds of that genus; but, as we do not comprehend for what reaſon the *Swediſh* naturaliſt has placed it among the butcher birds ‡, which are carnivorous, we have placed it in a particular genus by itſelf.

Grapes are the moſt common food of the chatterer; where theſe are not to be had, it devours berries of various kinds. This kind of ſubſiſtence being, in general, pretty abundant, it might be worth while to inquire into

* Vide Geſner, p. 703.

† Aldrovandi Ornithologia, p. 796.

‡ Vide Linnei, Syſt. Nat. Lanius, gen. xliii. ſp. 10.

to the cauſes of thoſe periodical migrations, which theſe birds make into the different parts of *Europe*, and at unequal diſtances of time. They cannot be aſcribed to cold, becauſe they happen only once, in five or ſix years; and then, theſe birds are ſeen pouring from the north in ſuch vaſt crowds, that, in ſome places, they darken the light of the ſun * They may then probably ariſe from the exceſſive multiplication of the ſpecies; which, in the courſe of a few years, may require ſuch large defalcations from its number. Such at leaſt is the caſe with certain kinds of inſects in the eaſt: Such too has often been the caſe with the human race itſelf, in countries where men had not arrived at a civilized ſtate; and, conſequently, were independent of that balance or equilibrium, which at length comes to be eſtabliſhed between the different powers of nature. It may happen alſo, that the chatterers are driven from their abodes, by temporary or local famine, which may compel them to ſeek, in diſtant countries, that food, which can no longer be found in their own †.

As, in theſe northern latitudes, the diſtance between the Old and New continent is not great, ſeveral birds which reſide in theſe climates, are common to both. This is the caſe with the chatterer: It has made its way into *Canada*, and ſpread as far ſouth as *Carolina*.

* Geſner, p. 703. † Buffon, tome xviii p. 437.

Genus XLII.—*The Coly* *.

These birds are but imperfectly known to our naturaliſts: They inhabit the warm parts of *Aſia* and *Africa*, but are not found either in *Europe* or *America*. *Buffon* deſcribes four ſpecies or varieties; and *Briſſon* two, the coly of the *Cape of Good Hope*, and the creſted coly of *Senegal*. They are all diſtinguiſhed from other birds by two long feathers, that ſpring from the middle of the tail, and extend four or five inches beyond the lateral ones. The whole upper part of the body is of an aſh-colour, and the belly of a dirty white. The feathers of the tail grow ſhorter as they lie nearer the ſides; ſo that the exterior feather on both ſides, is not above an inch in length. The beak of the former kind is grey, and black towards the extremity: In the latter, the upper mandible is white two thirds of its length, and black at the point. The creſted coly is farther diſtinguiſhed by a band of a beautiful ſky-blue behind the head.

* Colius, Lin. Le Coliou, Briſſon.

Genus XLIII.—*Groſbeaks* *.

This genus is very numerous: It contains five ſpecies of *Britiſh* birds, the *groſbeak*, properly ſo called, the *croſsbill*, the *bulfinch*, the *ſparrow*, and the *greenfinch*. *Linnæus* has no leſs than forty-ſeven different kinds of groſbeaks, but they are moſtly foreigners. That ſpecies, from which the genus takes the name, is rarely ſeen in *Britain*, where it reſorts only in hard winters; whereas, in ſeveral provinces of *France*, it remains the whole year, and makes an elopement, for a month, in ſome ſevere winters. There it moſt commonly inhabits the woods, and, in winter, when preſſed by the rigour of the ſeaſon, it approaches the cottages and farms. Unlike the other tenants of the wood, it is a ſilent bird, without ſong, and almoſt without any language whatever. Its hearing is probably as defective, as its voice; for it is never caught along with other birds, in the ſnares to which they are allured by the calls of the bird-catchers. It builds its neſt on the large branches of trees, at their inſertion into the trunk; and, when attacked in this fortreſs, it defends itſelf with the moſt obſtinate courage. The bill of this ſpecies is exceedingly hard and ſtrong, for breaking nuts, and other hard ſubſtances upon which it feeds.

This ſolitary and wild race, equally ſilent and deaf, ſeems defective in fertility alſo. All its qualities are concentred

* Loxia, Lin. Le Groſbec, Briſſon.

concentred in itſelf; for it is ſubject to none of thoſe varieties, which are beheld in the other tribes, and which proceeds from that vigour, or perhaps exceſs, of their powers, which prompts them to indiſcretion, and to the indulgence of unlawful love.

The Croſsbill *.

THE *croſsbill* is the moſt remarkable bird of this tribe. Both mandibles of the bill are hooked, and turned different ways, ſo that they do not meet at the point. This extraordinary bill is not uniformly in the ſame direction: In ſome individuals, the under mandible is twiſted to the right, in others, to the left ſide; a circumſtance, from which *Buffon* juſtly concludes, that this peculiar ſtructure of the bill, is owing to certain uſes to which it is applied by the bird, and not, any fixed appointment in Nature †. This ſpecies, as well as the former, is but an inconſtant viſiter of this iſland. It is an inhabitant of *Germany*, *Switzerland*, the *Alps*, and *Pirenees*; where it is permanent the whole year. Birds of this ſpecies migrate, from unknown cauſes, into other countries, not regularly, but in the courſe of ſeveral years ‡. They are, perhaps, driven from their native country by ſome particular temperature of the weather, that deſtroys their food, or proves hurtful to their conſtitutions. They inhabit the pine-foreſts; and feed upon the cones, for

* Le bec Croiſé, Buffon.

† Hiſtoire generale & part. des Oiſeaux, tome iii. p. 450.

‡ Vide Edwards's Gleanings, p. 197.

the ſcaling of which, the croſ orm of the lower mandible is admirably ſuited. The ſeed of apples is alſo a favourite food of theſe birds; and they are ſaid to be ſo dextrous in finding it, that they divide an apple with a ſingle ſtroke of their beak. Their colours are extremely apt to change at different ſeaſons of the year, and even in the courſe of a ſingle month *. The males, in particular, vary from deep red to orange and yellow. The females, which are green, change into different ſhades of the ſame colour †.

The Bulfinch.

THE *bulfinch*, which, in its natural ſtate, has but two or three very harſh notes, is ſo docile a bird, that, by a regular education, it becomes one of the greateſt proficients in muſic. The female alſo acquires the talent of ſong; a circumſtance by which ſhe is diſtinguiſhed from the whole ſex in the feathered race, being the only female to whom Nature has granted that endowment. The bulfinch may be taught to ſpeak, as well as to ſing; and many, thus accompliſhed, are brought annually from *Germany* to *London*. He utters his little phraſes, ſays *Buffon*, with ſuch an air of diſcernment and penetration, that you are apt to believe him animated by an intelligent principle; a falſe judgment concerning the ſcholar, which is the leſs ſurpriſing, as we are often equally wrong in aſcribing intellect to his maſter ‡. The male is diſtinguiſhed from the female, by the ſuperior blackneſs

* Geſner, Avi. p. 591. † Britiſh Zoology, vol. ii. p. 280.
‡ Tome xix. p. 375.

Plate XXIV

Bull Finch

Green Finch

From Mr Wiers Museum

Bewick

blackneſs of its crown, and by the rich crimſon that adorns its cheeks, breaſt, belly, and throat; thoſe parts of the female being of a dirty buff colour. The plumage of this ſpecies is variable, ſome individuals being wholly black *.

The Houſe-Sparrow.

THE *houſe-ſparrows* are ſo well known, as to render a deſcription of them unneceſſary; but unfortunately they are known for no good. They frequent, in vaſt numbers, the habitations of man, and live by continually pilfering the fruits of his labour, which they devour with ſuch aſtoniſhing voracity, that twenty *French* pounds of grain are ſcarcely ſufficient to maintain a pair of them for a year †. What an immenſe tax muſt theſe animals prove upon human induſtry, when we advert to the infinite numbers of them, that are, every where, ſecretly abſtracting from his ſtock of proviſions. The houſe-ſparrow is no leſs a debauchee than a glutton: His fallacious habits have become proverbial; and, in *France*, the female is ſaid to breed three times in the year. *Linnæus* repeats a ſtory from *Albertus Magnus*, which ſeems to plead more ſtrongly for the *faith*, than for the *philoſophy* of that naturaliſt. After having expelled the martin from his neſt, in the eaves of houſes, the houſe-ſparrow takes poſſeſſion of it; but the ejected martin ſoon revenges the inſult; for he aſſembles his companions, and having, by their aſſiſtance, plaiſtered up the hole with dirt, flies off in triumph ‡, leaving the invader and his family to periſh by hunger in this miſerable dungeon.

* Britiſh Zoology, 8vo. vol. ii. p. 300.

† Vide Buffon a l'article, moineau.

‡ Avolant Ovantes, Fauna Succica.

The Greenfinch.

THE *greenfinch* is the eaſieſt of all birds to tame, and will take meat from the hand five minutes after it is caught, if it have been carried into a dark room, and been made to hop from one hand to the other, by putting under its breaſt, the fore-finger of each hand alternately. After having been exerciſed in this way for a little, and having the light let in gradually upon it, it will eat bruiſed ſeed out of the hand, and continue ever after tame.

Section V.

Genus XLIV.—*The Bunting* *.

This genus has twenty-four ſpecies, according to *Linnæus*, and fifteen, according to *Briſſon's* enumeration. It is diſtinguiſhed by the bill, which is of a conoidical form, and of which the upper mandible is bent inwards toward the lower, and notched in the roof with a hard ſubſtance, for bruiſing corn, upon which this tribe feeds. Birds of this genus are birds of paſſage, that diſappear in the Winter, a little after the ſwallows. Their migrations extend to every country of *Europe*; but they are ſaid to be in greateſt plenty throughout *Italy*, and particularly in the vicinity of *Rome*. The *Britiſh* birds of this genus are, the *bunting*, the *yellow hammer*, the *red ſparrow*, the *greater brambling*. Theſe latter birds are ſpread over the whole of the north of *Europe*. The greater brambling is found in *Greenland* and *Spitzbergen*, where there are very few land birds. In theſe rigorous climates, it is, in the winter †, often altogether white, like the ſnow that ſurrounds it. In *Britain*, they are often, when of that colour, taken for white larks; but, in that country, they are more frequently tawny on the upper parts of the body, and white on the lower, tinged with yellow ‡.

* Emberiza, Lin. Le Bruant, Buffon.

† Linnæus, Fauna Succica. ‡ Brit. Zool. vol. ii. p. 322.

The Yellow Hammer *.

This bird inconteſtibly belongs to the genus of buntings, that claſs of birds ſo highly commended by the connoiſſeurs in eating. Happily for them, Nature has conferred upon it a very extraordinary degree of fertility. It rears ſeveral broods in the year, the laſt of which are ready to fly in the month of September. The neſt is eaſily conſtructed, on a ſmall mote of earth, in a buſh or a tuft of graſs, in which the female depoſites four or five eggs, of a white colour, but ſtreaked with various ſhades of brown. So intent is this bird on the buſineſs of incubation, that ſhe allows herſelf to be taken with the hand in broad day. The food, of which they are moſt fond, is grain of every ſpecies that is ſmall enough to admit of being ſwallowed whole; but, on the failure of this, they readily devour various tribes of inſects.

The yellow hammer is nearly as familiar, in its approaches to man, as the ſparrow. In Summer, it reſides chiefly in woods, and about the hedges; in Winter, that part, which remains in the country, is ſeen alighting in company with the ſparrow, and collecting half-digeſted grain from the horſe dung upon the high ways. In ſuch ſituations, theſe birds are often taken in ſnares, which they have not ſufficient precaution to avoid. They are capable of bearing all the different climates of *Europe*, from *Sweden* to *Italy*.

The

* Le Bruant de France, Buffon.

The male of this ſpecies is beautifully marked by the yellow feathers upon the head and upper part of the neck. His colour is pure on the ſides of the head, and on the throat, and breaſt; in other parts, it deepens into a brown, and ſometimes, an olive hue *.

The Ortolan †.

THE *ortolan*, or *bunting*, properly ſo called, is the ſame bird with the celebrated *miliaria* of *Varro*. Long before his time, it was known at *Rome*, where it was fattened, along with the quails and thruſhes, in thoſe aviaries which we have already deſcribed, and afterwards ſold, at a high price, to the *Hortenſii*, the *Lucullii*, and other epicures among that ſenſual people.

This is a bird of paſſage, and is therefore not, at all times, to be had in this country; and, while it reſides with us, it is not always fit for the table. Means have, however, been found to remove theſe obſtacles to gluttony. When the birds are taken, they are confined in dark chambers, from which almoſt every ray of ſun-light is excluded. Theſe dungeons are lighted up with lamps, that are kept conſtantly burning, ſo that the birds may not diſtinguiſh day from night. There the ortolans are allowed to run up and down amidſt a copious ſupply of millet, and every kind of the moſt nutritive food; and, by this treatment, they ſoon grow ſo fat, that they ſometimes ſink

* Vide Briſſon, tome iii.

† Fringilla remigibus nigris, Linnæus.

under the load of fleſh they accumulate, if they be not prevented from this accidental death by the owner.

When killed at the proper juncture, they are little lumps of fat, about three ounces each. Their fleſh is of a moſt delicate taſte; but it is a morſel which ſoon palls on the appetite by its richneſs. It is impoſſible to eat a large quantity of this food, provoking as it may be; for Nature, as in other inſtances, ſo here, has placed diſguſt before exceſs, as a guard againſt the intemperance of the glutton or the debauchee *. The ortolans, when fattened, are prepared for the table in various ways. Sometimes they are roaſted in a natural or artificial egg-ſhell; a method of cookery borrowed from the ancients, who not only dreſſed ſmall birds, but preſented them at table in this manner; ſo that, upon opening the egg, they were ſeen floating amidſt a high-ſeaſoned ſauce.

The delicacy of the fleſh of theſe birds, rather than their powers of ſong, recommended them to the luxurious *Romans*, and laid the foundation of their fame in the ancient world. When confined, however, in the cage, and properly educated, the ortolan is not deſtitute of muſical talents, which it exerciſes by night, as well as by day †. In ſome parts of *Italy*, where theſe birds abound, they are reared for their ſong, as well as for the purpoſes of the table. The firſt is the moſt fortunate deſtination; for their owners are then under no temptation to abridge the period of their lives, or to cram them in ſuch a manner, as to render life a burden. When they have been long accuſtomed to aſſociate with other birds, they learn, in ſome meaſure, to adopt their notes; but, whether from the imperfection of their organs,

* Buffon, tome xix. p. 308. † Buffon, ubi ſupra.

gans, or from want of docility, they never learn to pronounce any words, or to ſing an air.

The arrival of the ortolans in *France*, is nearly at the ſame time with that of the ſwallow, and they take their departure with the quail. On their firſt appearance, which is during the ſeaſon of their love, they are lean, but may even then be fattened, in a ſtate of confinement, and with proper food *. The common ortolan is yellow on the throat, and around the eyes; the breaſt and belly are red; and the upper part of the body brown, varied with black. Of this ſpecies there are three or four varieties. Some have been ſeen yellow, others white; while a few are nearly approaching to a black colour †.

The Reed-Sparrow ‡.

This ſpecies is ſo nearly allied to the ortolans, that, in the *French* language, it has obtained the ſame name. It is, however, different in its manners; for it is generally found in marſhy grounds, and it neſtles among reeds. Theſe abodes, indeed, it ſometimes changes for the highway and the corn fields. The reed-ſparrow never aſſembles in flocks, four or five being the greateſt number that are commonly obſerved to aſſociate together. It is a watchful and ſuſpicious bird, and ſeems to be continually looking out for the approach of an enemy. The upper part of its head is black; the throat and

* Buffon, ubi ſupra. † Ortolan noir Briſſon, tome iii. p. 274.
‡ L'Ortolan de Roſeaux, Buffon,

fore parts of the neck are variegated with that colour, and a mixture of grey. Half round the upper part of the neck, is a collar of pure white.

The varieties of the ortolan, in foreign countries, are ſo numerous, and diſtinguiſhed by characters ſo ſlight and ambiguous, as to baffle all deſcription.

Genus XLVI *.—*The Tanager* †.

This large tribe, of which *Buffon* deſcribes above thirty ſpecies, is wholly confined to *South America*. Such a vaſt number of diſtinct races of the ſame bird in one country, will not appear ſurpriſing, when we recollect, that, in theſe warm climates, where the food is abundant, the foreſts larger, and the lands more thinly peopled, birds are ten times more numerous than with us, where one ſevere winter almoſt exterminates whole tribes, both of land and water fowl. The tanagers, in *South America*, may be regarded as the repreſentatives of the ſparrow of *Europe*; a genus, which they reſemble in almoſt every particular, excepting the colour, and the ſmall groves hollowed out of the ſides of the upper mandible towards the point. Like the ſparrows, they make ſhort and heavy flights; like them, too, they are granivorous: Both cultivate the ſame familiarity with man; both are dependent on his labours, and are deſtructive of his property. They are ſociable with regard to each other, as well as to man; for they aſſemble in flocks upon the dry and open fields, around the villages. The tanagers, however, lay only two eggs at a brood, while our ſparrows lay

* In page 273, the genus, which ſhould have been marked XXXI. having, by miſtake, been marked XXX. has occaſioned an error in the number of the genera from the thirtieth to the preſent. That the number of the ſubſequent genera may be right, the preſent one is marked XLVI.

† Tanagra, Lin. Le Tangara, Buffon.

lay five; a circumſtance pretty frequent among birds of warm countries, whoſe apparent infecundity is ſo amply compenſated by the frequency of their breeding. In the mild and equal temperature of theſe climates, every ſeaſon is a ſeaſon of love, and every brood is quickly produced, and as quickly ſucceeded by another *.

The Creſted Tanager †.

This ſpecies is numerous in *Cayenne*, where it lives upon ſmall fruit. It frequents neither the woods nor marſhes, like ſome others of this multifarious tribe, but is found on the open and dry plains. There is one ſpecies of theſe birds found in *Brazil*, of a bright ſcarlet colour, which has, for that reaſon, received the title of *Cardinal* from *Briſſon* ‡, and that of the *Scarlet Sparrow* from *Edwards* §.

* Buffon, tome xix. p. 237.
† La Houpette, Buffon.
‡ Tome iii. p. 42.
§ Gleanings, p. 278.

Plate XXV

GOLD FINCH

CHAFF FINCH

From Mr. Wier's Muſeum

Beugo f.

Section VI.

Genus XLVII.—*The Finch* *.

This tribe conſiſts of nine different kinds of *Britiſh* birds; the *goldfinch*, the *chaffinch*, the *brambling*, the *mountain-ſparrow*, the *ſiſkin*, the *linnet*, the *greater* and the *leſſer red-headed linnet*, the *mountain-linnet* or *twite*; and to theſe are commonly added about fifty-eight ſpecies, from foreign countries †. The goldfinch is the moſt beautiful of our hard-billed ſmall birds, whether we conſider the colours of its plumage, the elegance of its form, or the harmony of its voice. The red, the black, the white, and golden yellow, which ſo copiouſly adorn it, want nothing but greater variety, and the reputation of coming from a diſtant part of the world, to make it an object of admiration. The bill is white, tipt with black, and ſurrounded at the baſe with a ring of rich ſcarlet feathers. The head is covered with large ſpots of black and white; the back, rump, and breaſt, are of a pale tawny brown. When the wings are folded, they diſplay a row of white ſpots, finely contraſted with the black ground upon which they are placed ‡: Theſe are the tips of the wing feathers, which terminate in white.

The

* Fringilla, Lin. Moineau, Buffon.

† Vide Briſſon, tome iii. p. 71. ‡ Buffon, tome xix. p. 189.

The goldfinch begins his agreeable, and well known warbling, about the beginning of March, and continues melodious throughout the whole Spring. Some naturaliſts have given this bird the ſecond rank among our ſinging tribes. The Honourable *Daines Barrington* allots to it the ſixth place, and alleges, that it is more diſpoſed to imitate the wren than any other ſongſter *. In Winter, the goldfinches aſſemble in large flocks, and feed upon ſeeds of different kinds, particularly thoſe of the thiſtle †. They prefer orchards for their reſidence, where they commonly build upon the fruit trees. The neſt is a laboured, but elegant ſtructure, the outſide of which is compoſed of moſs, liverworts, and bents, and the inner ſide is lined with dried graſs, hair, wool, and down from the ſwallow. The female goldfinch will ſometimes pair and neſtle with the male canary. This, however, is a much rarer aſſociation, than that of the female canary with the male goldfinch. It is not, however, till after ſhe has practiſed every art and blandiſhment of a coquette, that this amorous female warms the phlegmatic goldfinch, and tempts him to commit this act of phyſical incontinence ‡.

The *Canary* bird is the moſt remarkable of the linnet kinds, and, next to the nightingale, has been moſt celebrated for its muſical powers. It was originally peculiar to thoſe iſlands, from which it derives its name; but has long ſince become ſo common, in a ſtate of captivity, throughout *Europe*, that its native habits, as well as its native country, are, in ſome meaſure, forgotten. It is uncertain at what period theſe birds were introduced into

* Philoſophical Tranſactions, vol. lxiii. part ii.

† Brit. Zool. p 304.

‡ Buffon, tome xix. p. 195.

into this part of the globe; probably not till after the second discovery of these islands, in the fourteenth century. *Belon*, who wrote in the middle of the sixteenth century, takes no notice of them. *Gesner* * and *Aldrovandus* † mention them as so great rarities, that, in their time, they could only be purchased by people of high rank. They have since been bred in great numbers in *Germany*, and spread over *Europe* in such plenty, that their price has continued to diminish in proportion as their abundance has increased.

In *Europe*, the *Canary* birds exhibit all that variety of colouring which is usually the effect of long continuance in a state of domestication. Like our domestic poultry, they are almost of every colour, white, mottled, and green. In their native woods, from which they were originally brought, they are still found ‡; but they are there of a dull and uniform green, and exhibit none of that richness and variety which are so much admired in our tame birds; a circumstance, from which some have doubted whether they be actually of the same species. It is more on account of their note than their beauty, that these songsters are so carefully bred, in almost every country of *Europe*. Like the rest of the finch tribe, they have a high piercing pipe, which they continue, for some time, in one key, without intermission, then raise it higher and higher, by degrees, with great variety. This copious note is variously improved by education; for this bird being more easily reared than the soft-billed singers, and continuing its song much longer, has been more frequently bred than any other. Many treatises have been

* Gesner Av. p. 240. † Aldrov. Av. ii. 355.

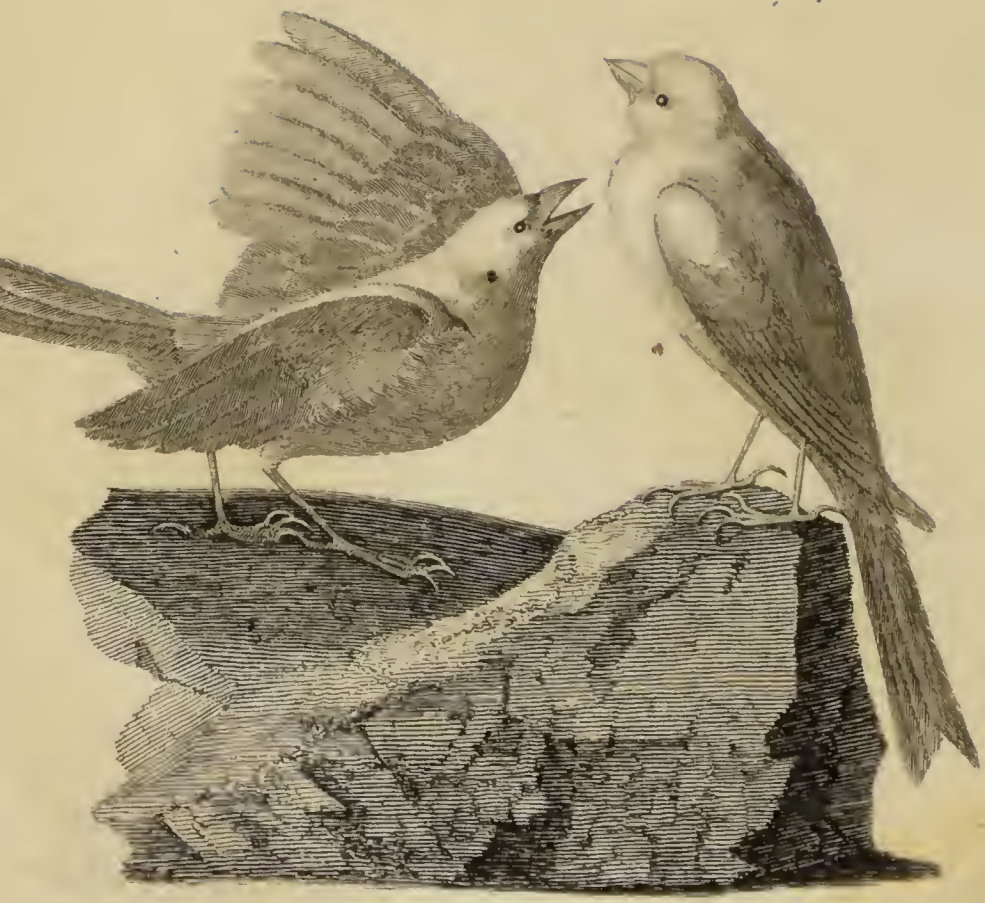
‡ Vide Glass's History of the Canary Isles, p. 199.

written, and ſeveral ſyſtems formed, for the rearing and educating theſe birds, which it is not the buſineſs of the naturaliſt to record. Let it ſuffice, that, in *Germany*, the apparatus employed in breeding the canaries is both large and expenſive. They erect for them a large houſe like a barn, with a ſquare ſpace at each end, and ſeveral holes to go into theſe ſquares. In theſe outlets, they plant thoſe kinds of trees, in which the birds take greateſt delight to ſing and to breed. The bottom of the place they ſtrew with ſand, and upon it caſt rape-ſeed, chick-weed, and ſuch food as the old birds feed upon in the breeding ſeaſon. Throughout the inner part of the houſe, which is darkened conſiderably, they place brooms for the birds to build in; taking care always, that the breeding birds be guarded from the incurſions of the reſt, by ſeparate partitions *. The canary will pair and produce with the goldfinch and linnet; but their offspring is called a mule-bird, becauſe, like that animal, it is incapable of producing its kind †.

* Goldſmith's Nat. Hiſt. vol. v. p. 342.

† Pennant's Brit. Zool. vol. ii. 317.

Plate XXVI



CANARIES

From Mr Wier's Museum

Beugo f.

GENUS XLVIII.—*The Flycatcher* *.

THE *flycatcher* is, in *Britain*, a bird of paſſage, that breeds in the iſland, but retires as early as the month of Auguſt. It builds its neſt upon the ſides of trees, or of old walls, and feeds upon inſects. When the young are led out, they generally take their ſtation upon the higher boughs of trees, whence they are taught to drop perpendicularly upon the flies below, and to riſe again in the ſame manner. Subordinate to the rapacious birds, and in the next claſs, Nature has placed this tribe of hunters, more numerous than that of its ſuperiors, becauſe more uſeful. The largeſt of this genus is of the ſize of the butcher bird, while the ſmalleſt is not larger than the nightingale. All the intermediate degrees are occupied by various kinds, differing in magnitude, but marked by the ſame generic characters †. The bill is compreſſed at the baſe, almoſt triangular, notched at the end of the upper mandible, and beſet with ſilky *vibriſſæ*. The head is large; that of the *European* ſpecies is of a brown colour, obſcurely ſpotted with black: The back is of a mouſe colour: The breaſt and belly are white.

Although almoſt univerſally ſpread over the globe, the tropical climates are the native abodes of this race: For the two ſpecies found in *Europe*, there are eight in

* Muſcicapa, Lin. Le Gobe Mouche, Briſſon.

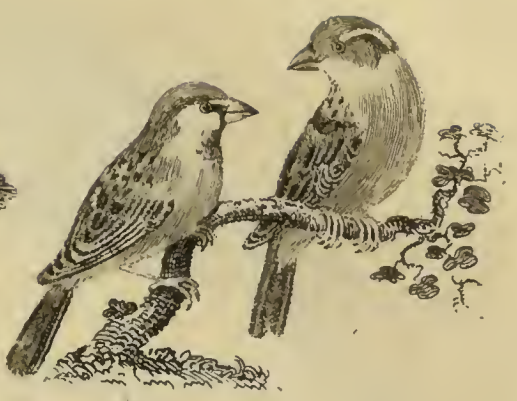
† Buffon, tome xix. p. 515.

the warmer regions of *Aſia* and *Africa*. But in *America*, which teems with larger and more numerous tribes of inſects, there are no leſs than thirty ſpecies of theſe birds, ſome of them of a ſuperior ſize, Nature wiſely proportioning their ſtrength and numbers to thoſe of the animals they are deſtined to devour *.

* Buffon, ubi ſupra.

Plate XXVII

SPARROW OF PARADISE



M. & F. SPARROWS

SEDGE BIRD

TREE SPARROW

LESSER RED POLE

SISKIN

GREATER RED POLE

Plate XXVIII

SKY LARK

CRESTED LARK

From Mr Wiers Museum

Beugo F.

Section VII.

Genus XLIX.—*The Lark* *.

Of the larks there are eight ſpecies known to frequent *Britain* †, namely, the *ſkylark*, the *woodlark*, the *titlark*, the *leſſer fieldlark*, the *red*, the *creſted*, the *graſhopper*, and the *willow-lark*: Only three or four other kinds are found abroad. Their generic characters are a ſtraight, ſlender, and bending bill; a tongue cloven at the end, and noſtrils covered with briſtles. The toes are divided to the origin; the claw of the back toe is longer, than that of the correſponding toe of other birds, but differs in length in ſome of the ſpecies ‡.

The *ſkylark*, which is the moſt harmonious of this muſical family, is every day ſeen in the fields, and therefore perfectly known. It only ſings while on the wing; but that happens, during the pairing ſeaſon, almoſt continually; for it riſes from the ground by the peep of dawn, and announces the approach of day to the whole of animated nature. When it firſt leaves the earth, its notes are feeble and interrupted. As it riſes, however, they gradually ſwell to their full tone; and the bird, long after it has ſoared to a height where it is loſt to the eye, ſtill continues to charm the ear with its melodious

* Alauda, Lin. L'Alouette, Buffon.

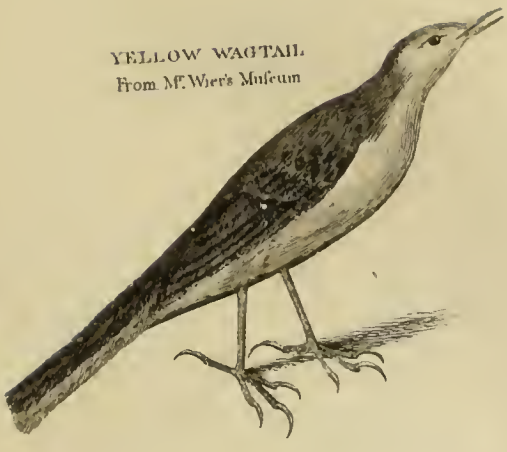
† Brit. Zool. p. 233. 8vo ed. ‡ Pennant's Genera of Birds, p. 34.

melodious lays. There is ſomething in the concomitant ſcenery, which renders the muſic of the lark more delightful than that of any other bird. The pleaſing landſcape, the ſilence of all nature, as if liſtening to its early call, the riſing ſun, and the gilded ſky, all contribute to heighten our reliſh for its innocent lays, and increaſe our attachment to this favourite. What a pitiful ſubſtitute for this charming melody, do we receive from the chirping of thoſe captives which we rear in the cage. It is the ill-timed mirth of priſoners, which their miſeries have rendered diſtracted, and inſenſible to their unfortunate ſituation.

The ſkylark builds its neſt on the ground, commonly at the ſide of a tuft, that ſhelters it from the weather. The female lays four or five eggs, of a duſky colour. It is from her ſide that the male riſes, when he ſoars to an imperceptible height in the air: For her he ſings, and on her his eyes are fixed, while he hangs poiſed in the atmoſphere. The harmony of the larks begins early in the Spring, and continues ſeveral months. In Winter, their ſong forſakes them: They then aſſemble in flocks, grow fat, and are taken in vaſt numbers by the birdcatchers. In the neighbourhood of *Dunſtable*, about four thouſand are taken, between the months of September and February, and are ſold in the markets of *London* *.

* Brit. Zool. vol. ii. p. 235.

Plate XXIX



YELLOW WAGTAIL
From Mr. Wier's Muſeum

WHITE WAGTAIL

YELLOW WAGTAIL

GREEN WAOTAIL

GENUS L.—*The Wagtail* *.

THIS genus is often united with that of the ſoft-billed ſong-birds that follow †; but its external character and manners are ſufficiently diſtinguiſhed to conſtitute a ſeparate tribe. There are three different ſpecies of the wagtail in our iſland, the *white*, the *yellow*, and the *grey*. Their tails are in continual motion, a peculiarity from which their *Engliſh* name is borrowed. They all frequent the ſides of ponds and ſmall ſtreams, where they feed upon inſects and worms. The white wagtail is a conſtant attendant on the plough, in the Spring and Autumn, ever watching for the worms that are turned up by it. In Winter, this ſpecies is migratory, removing, at that ſeaſon, from the north to the ſouth of *England* ‡.

* Motacilla alba. Lin. La Lavandiere, Briſſon.

† Vide Linnæus and Briſſon, who claſs it with the *motacillæ*.

‡ Willoughby's Ornithology, p. 237.

Genus LI.—*The Warblers* *.

This melodious race, which animates our groves, and enlivens the retired and ſolitary haunts of man, is very numerous, and ſpread over every region of the globe, excepting the arctic. It comprehends moſt of the ſmaller ſoft-billed birds; no leſs than fifteen different ſpecies being indigenous in this iſland, of all ſizes, from the nightingale, down to the wren. Theſe, added to the numerous liſt of foreign birds which this genus comprehends, make up no leſs than ſeventy-two different ſpecies, beſides many varieties enumerated by the *French* naturaliſts †.

The Redſtart ‡.

Though theſe birds have been ranked among the nightingales by ſome naturaliſts, and, in *France*, have obtained the ſame name, yet they are far inferior to the latter, both in the extent and variety of their voice. They have, indeed, a tender, plaintive, and affecting accent, eſpecially when combined in the imagination with the paſſion of love, of which it is the expreſſion. The redſtart differs ſtill more widely from the nightingale in its colour, form and manners. It is much infe-

rior,

* Motacillæ, Lin. Les Becfigues, Briſſon.

† Buffon and Briſſon. ‡ Le Roſſignolle de Muraille, Briſſon.

rior; in point of ſize, being even ſmaller than the red-breaſt; and its ſhape is longer and more ſlender. But what moſt remarkably diſtinguiſhes this bird, is a large black patch upon the fore part of the neck, which reaches up as far as the eyes and bill. The top of the head, the hind part of the neck, and the back, are of a deep, but ſhining grey. The wings are of a duſky black, and the breaſt, under the patch of black already noticed, ſhines with a fine igneous red, growing more and more faint towards the flanks and belly, which are of a white colour.

This ſpecies makes its appearance in Spring, along with the other Summer birds. It commonly alights upon old towers and uninhabited houſes, chooſing always the higheſt and moſt inacceſſible pinnacles. It is found, too, in the moſt impenetrable receſſes of dark woods, where it indulges, undiſturbed, its ſolitary habits, and utters its plaintive notes.

The redſtart neſtles in the holes of thoſe old walls which it frequents, or in the hollow of a rotten tree, and, ſometimes, in the cliff of a rock. The young ones are excluded in the month of May: They are five or ſix in number. While the female is employed in hatching and rearing them, the male is commonly ſtationed, as a centinel, upon a point of the rock, or upon the top of the wall, whence he utters his uninterrupted ſong; a pledge to the mother, that no danger is approaching her family. It is only when taken young, that the redſtart will acquire any familiarity with man; for, though this bird be frequently a near neighbour of the human race, he ſtill preſerves his native wildneſs and timidity. He comes and goes to his neſt, without ſeeming to obſerve theſe lords of the creation; or, at leaſt, without paying them any tribute, but that of fear. He acquires not the confidence and

intimacy that diſtinguiſh the redbreaſt, the gaiety of the lark, or the vivacity of the nightingale. His diſpoſition is melancholy, and his manners wild. If taken when old, he refuſes all food, preferring death to captivity; or, if he ſurvive his freedom, his obſtinate ſilence and ſullen grief plainly indicate, how deeply he is penetrated with the miſery of his condition *.

The Nightingale †.

THE *nightingale*, the moſt famed of all the feathered race, for its ſong, viſits *England* as early as the month of April, and takes its departure in Auguſt; but is never found to migrate ſo far north as *Scotland*, or weſt as *Cornwall* and *Wales* ‡. Though the climate of *Sweden* be more ſevere, it annually viſits that kingdom, by the accounts of *Linnæus* §. So various, ſweet, and continued are the notes of this bird, that the ſongs of the other warblers, taken in their utmoſt extent, appear like a couplet, when compared to thoſe of the nightingale. His variety appears inexhauſtible; for he never repeats the ſame notes a ſecond time, at leaſt ſervilely; and if the ſame bar be heard twice, it is always upon a different key, and with new embelliſhments. This great *chorypheus* || of the ſpring, as often as he prepares to conduct the hymn of Nature, begins by feeble, timid, and indeciſive

* Buffon, tome xx. p. 175.
† Le Roſſignol, Buffon.
‡ Brit. Zool. vol. ii. p. 255.
§ Fauna Suecica, ſp. 244.
|| The leader of the chorus upon the Grecian ſtage.

ciſive tones, as if to try his inſtrument. By degrees, he aſſumes more confidence, becomes gradually more warm and animated, till, at laſt, like the ancient orators, he captivate and overwhelm his audience, by the full exertion of his aſtoniſhing powers *. Theſe qualities of the nightingale were well known to the ancients; and *Pliny* has given an admirable deſcription of them in his tenth book, where he mentions the ſpirit of emulation which it diſplays in ſong. Two will continue to carry on an obſtinate conteſt for victory, till the vanquiſhed bird drop breathleſs to the ground †.

In *England*, the nightingales frequent thick hedges, and low coppices, and generally keep in the middle of the buſh; ſo that they are very rarely ſeen. They begin their ſong in the evening, and continue it the whole night ‡. Perhaps a good deal of their fame is owing to this circumſtance: During the ſolemn ſtillneſs of night, when all the animals are at reſt, every ſound is heard with advantage, and has, amidſt darkneſs, a more powerful effect upon the imagination. Theſe vigils did not eſcape the notice of the *Mantuan* poet, who thus deſcribes them:

Qualis populea mœrens philomela ſub umbrâ,
Amiſſos queritur fœtus, quos durus arator
Obſervans nido implumes detraxit: at illa
Flet noctem, ramoque ſedens, miſerabile carmen
Integrat, et mœſtis latè loca queſtibus implet.

GEORG. iv. l. 511.

* Daines Barrington, Phil. Tranſ. vol. lxiii. part ii.

† Victa morte ſinit ſæpe vitam, ſpiritu prius deficiente quam cantu.

‡ Brit. Zool. vol. ii. p. 254.

As Philomel in poplar ſhades, alone,
For her loſt offspring pours a mother's moan;
Which ſome rough plowman marking for his prey,
From the warm neſt, unfledged. hath dragg'd away;
Perch'd on a bough, ſhe all night long complains,
And fills the grove with ſad repeated ſtrains.

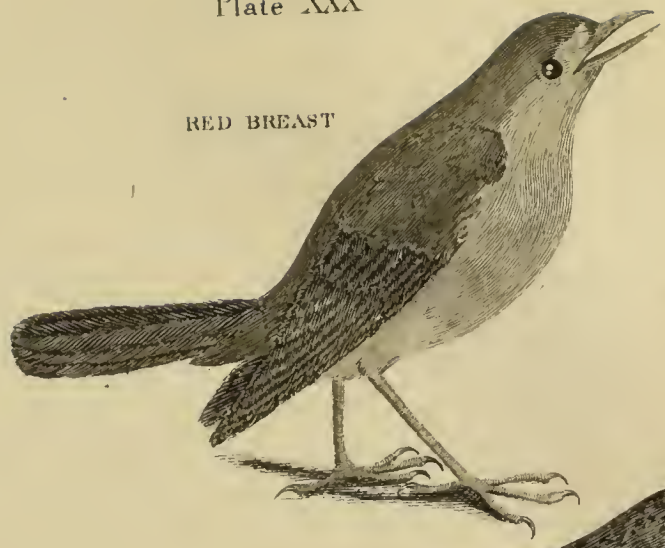
F. WARTON.

Though the nightingale be a very ſmall bird, his voice is heard farther than the human; being heard, in a calm night, at the diſtance of almoſt a mile all around the buſh where he ſits. When tamed, he ſings for nine months in the year; a circumſtance, from which we may conclude, that it is with no intention to ſooth the toils of the female during incubation *. In fact, the female hatches becauſe ſhe is prompted to that function by a paſſion, perhaps ſtronger than that of love; and ſeems to feel in it an inward joy, which renders her independent of all conſolation. The warbling of the male is, in like manner, the reſult neither of duty, nor of prudential conſiderations: It is the natural and unavoidable expreſſion of the ſexual paſſion; a paſſion which gratification no ſooner extinguiſhes, than the gift of ſong is loſt, and the pretended ſolace of the female is at an end. From the end of June, the nightingale ceaſes to ſing: His voice becomes then more like the croaking of a toad, than that of the tuneful philomel we have deſcribed.

The nightingale's talents for ſpeaking are reported to be equal, if not ſuperior, to his muſical ones. *Geſner* gravely mentions two kept at *Ratiſbone*, by the landlord of an inn, that ſpent whole nights in adjuſting

* Buffon, tome xx. p. 87.

Plate XXX



RED BREAST

HEDGE SPARROW

GOLDEN HEADED WREN

From Mr. Wiers Museum

Beug 1

juſting the political intereſts of *Europe* *; but he has forgotten to mention, whether they were admitted as conſtituent members into the diets of the *Germanic* body. *Germannicus* and *Druſus*, the two ſons of *Claudius*, are ſaid, by *Pliny*, to have educated one ſo liberally, that he delivered orations both in *Greek and Latin* †.

This bird's fame for muſic has often been fatal to its liberty. In order to ſecure its ſong, it has often been made a priſoner; and the greateſt part of what is written upon the ſubject, is with a view to inſtruct its tyrants, how to perpetuate its ſlavery. The nightingale is about ſix inches from the tip of the bill to that of the tail. Its colours are very plain, the head and back being of a pale tawny colour, daſhed with olive; the throat, breaſt, and upper part of the belly, of a light aſh-colour; the lower part of the belly, almoſt white. The wings and tail are of a tawny red. The other *Britiſh* birds belonging to this genus, are, the *redbreaſt*; the *hedge-ſparrow*; the *black-cap*; the *pettychaps*; the *common*, *willow*, and *golden-creſted wrens*; the *wheat-ear*; the *whinchat*; the *ſtone-chatter*; and the *goldfinch* ‡.

The Redbreaſt ||.

THESE little birds, on account of their near approaches to our dwellings, and their famialiarity with man, are, perhaps, the beſt known of all the feathered race, except ſuch as are kept in domeſtication. They are capable of enduring

* Geſner, aves, p. 594.
† Plinii Hiſt. Nat. lib. x. cap. 42.
‡ Brit. Zool.
|| Le Rouge Gorge, Buffon.

enduring the moſt ſevere winters in this iſland; but, at the approach of thoſe inclement ſeaſons, they leave the woods, where they reſide in ſummer, and are willing to acknowledge a kind of dependence upon man. It is then that they enter the orchards of the farmer, and eſtabliſh themſelves in ſome hedge, or unoccupied houſe; making frequent calls at the kitchen-door, during the continuance of froſt, in order to pick up any crumbs and fragments that have been dropped there, before theſe be deſtroyed or congealed by the froſt. Many of them have been fed from the windows, during the whole ſeaſon: Some intruſt themſelves even within the room; and it is ſeldom, that they repent of this confidence; for they are univerſal favourites, and, almoſt always, meet with that generous treatment, which their wants or their truſt in the human race, ſo well merit.

It is remarkable, that a bird which remains in *North Britain* all the year round, ſhould migrate from *France*, during the winter months. Such, however, is the caſe: He there frequents the hedges and dwelling-houſes, for a ſhort time, in Autumn and Spring; but regularly, in the dead of Winter, when the hard froſt commences, he diſappears. In his Spring viſit, he makes but a ſhort ſtay, haſting, as he then is, to enter the foreſt, that he may there, amidſt the ſpreading leaves, enjoy ſolitude and love.

The redbreaſt builds its neſt at the foot of ſome thick ſhrub, or upon a tuft of graſs, able to ſupport it. The materials of which it is compoſed, are oak-leaves, moſs, and a bed of feathers within. Sometimes, after the edifice is finiſhed, the bird covers it entirely over with leaves, allowing only a ſmall paſſage to remain, ſufficient to admit its body.

During the ſeaſon of neſtling and incubation, the male makes the grove reſound with his ſoft and melodious lays.

lays. His warbling is ſoothing and tender, animated occaſionally with notes of a louder tone, and ſometimes, too, graced with thoſe touching and engaging accents, that ſeem to expreſs the ardour of his love. In the ſweet ſociety of his female, he ſeems to be wholly abſorbed: At the interference of other company, he becomes fretful and enraged; for no ſtranger is permitted to intermeddle with his joy: Even thoſe of his own ſpecies, he purſues with rage, 'till he baniſh them from the diſtrict he has choſen for himſelf. His love exhibits a ſtrange mixture of jealouſy and attachment.

The food of the redbreaſt varies with the ſeaſon. In Spring, he feeds upon inſects and worms, which he purſues with addreſs and nimbleneſs, in thoſe moiſt and ſhady diſtricts where he then reſides. In Autumn, he devours all kinds of ſeeds and fruits that are produced in the diſtrict, not excepting the apple and the grape.

There is no bird more active, none ſatisfied with a ſmaller portion of reſt, than this bird: He is the firſt bird that appears in the woods at the break of day, and the laſt that retires thither in the evening to enjoy repoſe. This ſpecies is ſpread over the whole of *Europe*, from *Norway* and *Sweden*, to the coaſt of the *Mediterranean*.

The Common Wren *.

THE ancients gave this ſmall bird the name of *Troglodyte*, from the fancied reſemblance between its manners, and thoſe of a race of men who inhabited dens and caves of

* Motacilla griſea, Lin. Le Troglodyte, Buffon.

of the earth. There is ſome difference among naturaliſts in claſſing and diſtinguiſhing the three ſpecies of wrens; a circumſtance, that might be expected in ſubjects ſo minute, and ſo ſlightly diſcriminated by Nature. The common wren is known from its reſidence. It frequents farm-houſes, and country villages, where it is ſeen hopping about, full of life and vivacity, even in the midſt of winter, expreſſing, towards evening, its happineſs, in cheerful and well-toned notes. It is ſeen upon the top of heaps of fire-wood, or by the ſides of old walls, where it diſappears in a moment, by making its way into ſome ſmall hole. It remains not, however, long concealed; but again appears to make quick and inconſtant movements with its little tail, always raiſed in an almoſt perpendicular direction.

The flights of the wren are very ſhort, and expeditious. When flying, it moves its wings with ſuch rapidity, that they become inviſible. Its length is about three inches and an half, and its breadth, when the wings are extended, five. The whole plumage is tranſverſely barred with undulating lines of brown and black; on the belly and lower parts it inclines to grey.

This bird, ſlender as it is in form, is almoſt the only one, that remains with us during the moſt ſevere winter; and it is the only one of the whole feathered creation, which continues its warbling in a ſeaſon, in which the univerſal ſilence of the woods and groves is interrupted only by the croaking of ravens. During a fall of ſnow, it is ſtill better heard; for then it enters the court-yards, the door of the ſtable or dairy, ſeeking, among the garbage, for the dead bodies of inſects, or their *larvæ*.

We cannot conclude this ſhort hiſtory of the warblers, without obſerving, that there are ſome circumſtances attending the ſinging of birds which ſeem highly flattering

to

to man; circumſtances, that may lead him to imagine, that their muſical endowments are conferred upon them, chiefly to promote his pleaſure. While the canopy of the ſky, the expanſe of the ocean, and the verdure of the the fields, are fitted to give delight to one of his ſenſes, the harmony of the feathered tribe ſeems equally calculated to ſooth and captivate another; and it therefore may, with the ſame propriety, be adduced as a proof of the goodneſs and munificence of the Great Parent of the human race.

In ſupport of this pleaſing illuſion, if ſuch it be, let it be obſerved, that, in general, the muſical birds reſide in the vicinity of man, and are rarely found in the uninhabited parts of the earth. While a ſolemn ſilence reigns in the depth of the foreſt, and in the barren wild, every cottage, as you approach the cultivated plains, is honoured with the viſits, and charmed with the melody, of the ſinging birds. Often has the bewildered traveller, in the dreary tracts of *South America*, conceived his firſt hopes of ſafety from hearing the notes of the muſical birds, and been conducted, by a band of ſongſters, to the habitation of his fellow-creatures. On the other hand, the ſilent birds, and ſuch as have harſh and diſagreeable voices, generally inhabit the inacceſſible wilds, the gloomy foreſt, or the diſtant parts of the ocean. There their ſcreaming notes overcome the noiſe of the winds and water, and prevent them from being diſperſed from each other amidſt the fury of theſe tempeſtuous elements.

Further, we have no evidence, that thoſe birds, which are capable of imitating ſounds, are poſſeſſed of what may be called a taſte for muſic. They have no predilection for melodious notes; but will imitate the harſheſt ſcreams as readily as the fineſt air. They ſeem, in a

great meaſure, inſenſible to the effect of their own powers, and the charms which they poſſeſs; for it does not appear, that the birds of one ſpecies are delighted with the warblings of thoſe of a different one. Man, however, derives pleaſure from them all; a pleaſure, which never riſes higher, than when it is produced by the combined effect of every note in the grove.

——Up ſprings the lark,
Shrill voic'd and loud, the meſſenger of morn;
E'er yet the ſhadow fly, he mounted, ſings
Amid the dawning clouds, and from their haunts
Calls up the tuneful nations. Every copſe
Deep tangled, tree irregular, and buſh
Bending with dewy moiſture, o'er the heads
Of the coy choiriſters that lodge within,
Are prodigal of harmony. The thruſh
And woodlark, o'er the kind contending throng
Superior heard, run through the ſweeteſt length
Of notes, when liſtening Philomela deigns
To let them joy, and purpoſes in thought
Elate, to make her night excel their day.
The blackbird whiſtles from the thorny brake;
The mellow bulfinch anſwers from the grove;
Nor are the linnets, o'er the flow'ring furze
Pour'd out profuſely, ſilent. Join'd to theſe
Innum'rous ſongſters, in the freſh'ning ſhade
Of new ſprung leaves, their modulations mix
Melliſluous. The jay, the rook, the daw,
And each harſh pipe, diſcordant heard alone
Aid the full concert; while the ſtockdove breathes
A melancholy murmur through the whole.

THOMSON'S SEASONS.

Section VIII.

Genus LII.—*The Manakin* *.

These birds inhabit *South America*; and, although there be thirteen different ſpecies deſcribed by the naturaliſts, no traveller has yet given any account of their manners. They are of every ſize, from that of the ſparrow to the wren. They inhabit the large foreſts of the new world, and are ſeldom ſeen in the green fields. *Manakin* is the name given them by the *Dutch* in *Surinam*. The largeſt manakin is diſtinguiſhed by a beautiful creſt of red feathers upon its head. The back of this bird is of a fine blue; the reſt of the plumage deep black. The middle toe is connected with the outmoſt as far as the third joint.

The *widehoop*, or *cock* of the *rock*, is commonly claſſed with the manakins, though as large as the turtle dove, and diſtinguiſhed by a large ſemicircular creſt that runs longitudinally from the bill, along the crown of the head. This is the moſt beautiful bird of all *South America*, and, by its ſquare tail, ſeems to belong to the gallinaceous tribes.

* Pipra, Lin. Le Manakin, Buffon.

GENUS LIII.— *Titmouse* *.

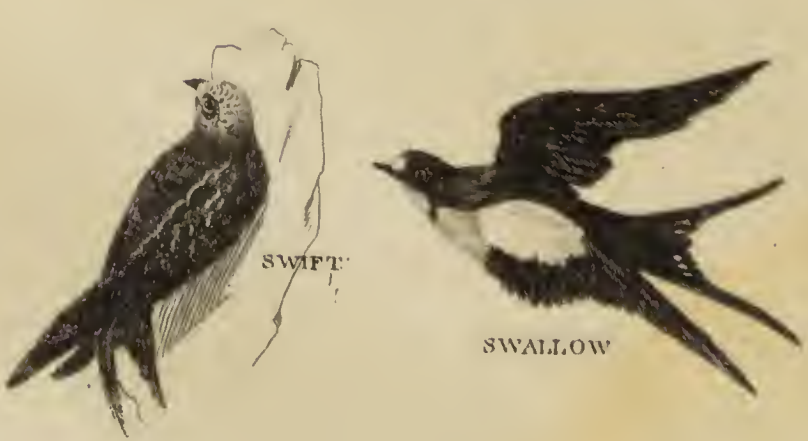
THIS family of birds, of small size, are apparently feeble. This debility, however, is more apparent than real; for they are active, lively, and pugnacious. They are continually in motion; continually fluttering from tree to tree, from branch to branch, or climbing along the trunks, in quest of insects and *larvæ*, which are deposited there. The *great titmouse*, the *blue*, the *cole-mouse*, the *marsh*, and the *long-tailed* species, and indeed, all the *European* kinds, are found in *Britain* †; but never in any quantity, till the frost and snow compel them to leave the woods, and approach the habitations of men in quest of food ‡. They are extremely destructive in orchards, by crushing the buds of the fruit-trees, in searching for the insects that are sometimes sheltered in them. The titmice are the most fertile of all birds. One would be led to believe, that there enters into their constitution a greater quantity of the principles of life, than into that of other birds §; and hence, probably, their faithfulness, their activity, and their courage. The blue titmouse is a very beautiful species. The bill is short and dusky. From the bill to the eyes, runs a black line; while the forehead and checks are white. The back is of a yellowish green; and the lower side of the body

* Parus, Lin. La Mesange, Buffon. † Brit. Zool. vol. ii. p. 324.

‡ Buffon Hist. Nat. tome xx. p. 381

§ Journal de Physique, Paris 1776.

Plate XXXI



body yellow, finely contraſted with the wings and tail, which are blue.

Two ſpecies of this bird ſuſpend their neſt from a branch, like the orioles of *America*. They are ſuppoſed to be the only *European* birds in which that habit is obſervable. Theſe tribes are all ſo furious and iraſcible, that they ſeem diſtruſtful of the ſociety of each other: Judging each its neighbour's temper by its own, they are afraid to approach one another. Such is the ſociety of the wicked *.

* Buffon ubi ſupra.

Genus LIV.—*The Swallow* *.

Of all the feathered tribes, that of the ſwallow kind is moſt upon the wing. Flight ſeems indeed its natural, and almoſt neceſſary attitude. In that ſtate it feeds and bathes itſelf, and ſometimes procreates and nouriſhes its young. Of theſe facts we have an example in the *ſwifts* †. Sometimes they give chace to the fluttering inſects upon which they feed, diſplaying, in the purſuit, that amazing verſatility which enables them to continue the chace through all their oblique and winding courſe. At other times, they ſkim along the ſurface of the earth, or the water, ſeizing the ſmall ephemeræ, and May-flies, juſt emerging from their aurelia ſtate. Again, they are ſeen eluding the impetuoſity of the ſwifteſt birds of prey, by the rapid flexibility of their movements. Nature has admirably adjuſted their ſeveral parts to a life, that muſt be ſupported by rapid motion. Their wings are long, and adapted for continued flight. Their tails are large and forked, to enable them to turn with agility, and to be maſters of their flight even in its greateſt velocity.

The ſwallows are confined to no particular region of the globe; every ſpecies being equally ſpread over both the Old and the New Continent. No country can prove inacceſſible to birds, that continually travel with ſo much ſwiftneſs

* Hirundo, Lin. L'Hirondelle, Buffon.

† White's Hiſtory of Selborne, p. 181.

ſwiftneſs and facility. Hence all the *European* ſpecies are found from *Norway* to *Japan* *; from the coaſts of *Egypt* to thoſe of *Guinea*; and at the *Cape of Good Hope* †. Theſe birds, from their facility of tranſporting themſelves, and the inconſtancy of their ſupply of food, but rarely remain during the whole year in any country. Thoſe of *Europe* are well known to diſappear during Winter, chooſing theſe climates for their reſidence only in the breeding ſeaſon. After producing and rearing their ſecond flight, they all depart, one after another; the ſwifts taking their leave firſt, and the houſe-ſwallows lateſt in the ſeaſon ‡. *Ariſtotle*, and after him *Pliny*, has aſſerted that the ſwallows paſs the Winter in a milder climate, when that is not very remote; but that, when it is far removed from theſe more temperate regions, they remain under the ground, in holes of banks of a ſoutherly expoſure, whence they are ſometimes dug out altogether naked of feathers §. This is perfectly congenial to the ſpirit of theſe ancient naturaliſts, who paſſed over the uſeful and well authenticated facts in the hiſtory of Nature, to retail what was marvellous and extraordinary. Not to be outdone by antiquity even in credulity and folly, ſome have improved upon theſe extravagancies, and added, that the ſwallows of the north of *Europe* regularly immerſe themſelves in lakes during Winter. A thouſand teſtimonies have been brought to ſupport this fancy, which all carry their own refutation along with them, and render it unneceſſary to detain the reader,

* Voyage de Villaut, p. 270.

† Kolben's Travels to the Cape of Good Hope, vol. i. 151.

‡ White's Hiſtory of Selborne.

§ Ariſt. Hiſt. Animal. lib. viii. cap. 12. Plinii Hiſt. Nat. lib. x. cap. 24.

reader, by combating an opinion ſo contrary to experience and obſervation. No well authenticated inſtances of the hibernation of even the bant-ſwallows have yet been adduced; for theſe birds, contrary to what might be expected, did they remain, during Winter, in a torpid ſtate, do not uſe, as Winter-houſes, the caverns in which they neſtle in Summer. Banks perforated by this bird, have been dug with great care, during the Winter, when nothing was found but empty neſts *.

The nidification of this tribe is a curious part of their economy. It is wonderful to obſerve with what different degrees of architectonic ſkill Providence has endowed birds of the ſame genus, and nearly correſpondent in their mode of life. While the ſwallow and the houſe-martin diſcover the greateſt addreſs in raiſing, and ſecurely fixing cruſts of loam, of which their neſts are formed, the bank-martin terebrates a round hole in the ſand, which is ſerpentine, horizontal, and about two feet deep. At the inner end of this burrow does this bird depoſite in ſafety, her rude neſt, conſiſting of fine graſſes and feathers, very inartificially laid together. At firſt, one would be diſinclined to believe, that this weak bird, with her ſoft and ſlender bill and claws, could ever bore the ſtubborn ſand-bank, without entirely diſabling herſelf; yet, with theſe feeble inſtruments, a pair of them have been ſeen to make great deſpatch. This ſpecies of ſwallow is greatly annoyed with fleas. Bed-fleas † are often ſeen ſwarming at the mouths of their holes, like bees on the ſtools of their hives. Perhaps it is owing to this circumſtance, that the old habitations are forſaken in the courſe of a few years, and new ones bored. They become foul and fetid, and ſo peſtered

* White's Hiſtory of Selborne, p. 177. † Pulices irritantes.

peſtered with fleas, that they are no longer in a tenantable condition.

The *Britiſh hirundines* are all ſo well known, that it is unneceſſary to give a long deſcription of each ſpecies. The houſe-ſwallow, which appears earlier than the reſt, and departs in September, is diſtinguiſhed by the red ſpot on its fore-head, and under its chin. It is now aſcertained, by the obſervations of Mr. *Adanſon*, that this ſpecies takes up its Winter quarters in *Senegal*, and along the *Morocco* ſhore *.

The *martin* is inferior in ſize to the former, and leſs forked in the tail. The upper part of the body is black, gloſſed with blue, and the belly is white. The *ſand-martin* is ſtill ſmaller, and the whole upper part of its body is of a mouſe-colour.

The *ſwift*, the largeſt of our ſwallows, breeds under the eaves of houſes, and is of a ſooty hue, all but the chin, which is marked with a white ſpot. This bird has a ſingularity in the formation of its foot, which entitles it to be ranked a diſtinct genus: All the four toes are before; and the outer has but one joint, the reſt two †.

The *chimney* and *houſe-ſwallows* are by far the beſt known of this genus. Their conſtant predilection for the vicinity of man, gives them a preferable claim to his attention, and, at the ſame time, affords him an opportunity of becoming acquainted with their manners. The chimney-ſwallow is always the firſt, that makes its appearance in the Spring. The period, however, of its arrival, varies according to the warmth of the climate: It is always earlier in the countries of the ſouth, than in thoſe of the north of

* Voyage to Senegal, p. 120. † White's Hiſtory of Selborne.

Europe. Of this there are two obvious cauſes. The ſouthern parts of *Europe* lie nearer to *Africa*, than the others; conſequently, in its migrations from *Africa*, this bird muſt firſt be ſeen there: And, from the ſuperior warmth of *Spain* and *Italy*, thoſe countries are ſooner fitted for the reception of birds which ſubſiſt upon inſects. Into theſe, therefore, they ſooneſt venture. About the end of March, this ſpecies is ſeen in countries yet covered with ſnow.

In the year 1740, great flocks of them were ſeen in a province of *France*, where they crowded to a river, and dropped dead upon its ſurface, in ſuch numbers, that the water was covered with their carcaſes. It appears, that theſe birds did not periſh from an exceſs of cold, but merely from a failure of their food; for thoſe, which were taken up, were all emaciated to a ſkeleton, and ſuch as were yet alive, were ſo much enfeebled, that they could not fly.

The ſwallows are entitled to the protection of man, from the ſervice they perform in devouring many ſpecies of inſects highly detrimental to turnips, and other green crops. They are ſaid indeed to forfeit his regard, by deſtroying bees. This charge, however, is not ſufficiently proved. From the experiments made by *Friſch* and other naturaliſts, it is aſcertained, that the houſe and chimney ſwallows return every year, to build in the ſame neighbourhood, and even to the ſame place; and that the latter add a new ſtory to the former pile of building, which had become untenantable. For this fact, there is the incontrovertible evidence of a ſwallow returning, that had been marked, the former year, by affixing a red ſtring to its leg.

The ſtructure of the ſwallows is ſo well known, that it is unneceſſary here to deſcribe it. We ſhall only re-

mark, that the manner, in which thefe birds teach their young to fly, is perhaps the moſt curious part of their hiſtory. In giving the firſt leſſons, the old birds encourage them with their voice: They then preſent their food to them, keeping at ſome little diſtance, and ſtill removing, as they find them able to follow. At other times, they puſh them gently from the neſt; flutter before them upon the wing, as if ready to give them the neceſſary aſſiſtance; always accompanying thefe actions with a kind of warbling, ſo expreſſive, that you fancy you underſtand its meaning. Such is the ſtrength of their parental feelings, that there is recorded an inſtance of a female ſwallow, which, after having returned from procuring food for her young, and finding her neſt in flames, darted into the midſt of them, to relieve her periſhing offspring *.

The ſwallows, being infectivorous birds, are always determined to fly in thoſe places where their prey reſides. Sometimes, in dry and warm weather, they are ſeen flying at a great height. At other times, when, by cold or rain, the inſects are prevented from riſing to the elevated regions of the air, they are obſerved ſkimming along the ſurface of the earth, or of the water; and, when the inſects are incapable of flight, they pick them up from the piles of graſs, or from the ſurface of the water, in which they ſometimes partially dip themſelves in taking them. The houſe-ſwallows are much more numerous, than that ſpecies that builds in the chimney. The latter take their departure during night, commonly about the beginning of October.

Among fourteen or fifteen different ſpecies of foreign ſwallows deſcribed by naturaliſts, that termed, by the in-

* Vide Montbeillard, apud Buffon, tome xxi. p. 598.

habitants of the *Philippines*, the *ſalangane*, is the moſt remarkable. It is of the ſpecies of the bank-ſwallow, and owes its celebrity to its building its neſt of ſuch materials, that the inhabitants of *China* and *Japan* dreſs it into an excellent ſoup; and, for that purpoſe, they buy it with great avidity. Theſe famous neſts are a luxury altogether unknown to our epicures; and, indeed, the accounts of them are loaded with many improbable circumſtances, which render their exiſtence, as a ſpecies of food, not a little problematical *. The ancients alſo deſcribe a glutinous ſubſtance found floating upon the ſea, which they dreſſed for food. But though they termed it the halcyon's neſt, they do not ſeem to have imagined it to have ever been occupied by any bird.

* Voyage round the World, by Gemelli Carreri, vol. v. p. 170.

Plate XXXII

M. & F. GOAT SUCKER

DODO

Section IX.

Genus LV.—*The Goatſucker* *.

The *goatſucker* is ſo nearly allied to the ſwallow tribes, that ſome have claſſed it among their number. It may, indeed, be properly termed a *nocturnal ſwallow*; for it differs from the other kinds in little, but in the time of its feeding, commencing the purſuit of its prey about ſun-ſet, and continuing it all night. It poſſeſſes the ſame generic characters as the ſwallow, ſuch as, a wide mouth, a ſmall bill, and ſhort legs. So great is its ſenſibility in the organs of ſight, that it ſeldom appears by day, and that only in dark and cloudy weather. Like the other nocturnal birds, which are dazzled by the light of broad day, this genus ſees moſt perfectly in an obſcure light; but to all animals ſome degree of light is neceſſary to viſion.

The goatſucker makes but a ſhort ſtay in *Britain*. It appears not till the end of May, and takes its departure about the middle of Auguſt. As the night inſects are its food, namely, moths, gnats, dorrs, and chafers, it is probable that that ſpecies of food does not continue longer to abound in this northerly country. The ſtructure of this bird's mouth, is well fitted for the reception of that kind of

* Caprimulgus, Lin. L'Engoulevant, Buffon.

of nouriſhment, being no leſs than an inch and three quarters wide. When the animal flies, it is continually open, and has no need of being ſhut, to ſecure the inſects caught in it; becauſe it is ſurrounded, in the inner ſide, with a glutinous ſubſtance that prevents their eſcape *.

This manner of flying with its mouth open, is the occaſion of that continual buzzing noiſe, which this bird makes while chacing its prey. It ariſes from the reſiſtance given to the air by the mouth; and is more or leſs loud, according to the velocity with which the animal moves. The note of the goatſucker, when perched, is a ſmall plaintive ſqueak, repeated ſucceſſively five or ſix times. The neſt of theſe birds, if a ſmall accidental hollow in the ground can be called a neſt, is conſtructed with no care. The eggs, to the number of two, are depoſited in it, without any lining, to protect them from the ground, and damps. *Montbeillard*, who writes this bird's hiſtory for *Buffon* †, takes upon him, in the extenſive work of that naturaliſt, to affirm, that the goatſucker no ſooner perceives her neſt to be diſcovered by an enemy, than ſhe carefully, with her wings, rolls her young to a more ſecret hole. Should this fact be eſtabliſhed, it will prove, that affection, which birds have for their young, is not always proportioned to the previous labours in producing them.

The colours of this genus of birds, though plain, have a beautiful effect, from the elegance of their diſpoſition, conſiſting of black, white, brown, grey, and ferruginous, diſperſed in forms of bars, ſtreaks, and ſpots ‡.

The

* Buffon Hiſtoire Naturelle, tome xxi. p. 517.

† Idem, ibidem. ‡ Britiſh Zoology.

The male is diſtinguiſhed from the female, by an oval white ſpot, near the end of the firſt three quill-feathers. The ſize of the *Britiſh* ſpecies is ten inches, and the weight two ounces and an half. Of this bird *Linnæus* * deſcribes only two ſpecies, and *Briſſon* four †. *Buffon* ‡, however, has ten or twelve, and their varieties peculiar to *America*; whence he concludes, that the goatſucker is originally from the New World.

* Syſtema Naturæ. † Ornitholog.; tome xi. p. 470.
‡ Hiſtoire Naturelle, tome xxi. p. 625.

CHAPTER VII.

SECTION I.

ORDER VI.—*The Struthious Birds.*

GENUS LVI.—*The Oſtrich* *.

THOUGH the power of flying may be conſidered as the diſtinguiſhing attribute of the feathered tribes in general, yet there are ſome particular families to which Nature has denied that endowment; while ſhe has granted it to a few of the quadrupeds, and even of fiſhes. It is thus that ſhe diſplays the extent of her power, by the variety of her productions, and diſdains to be confined within the narrow limits preſcribed to her by the ſyſtems of philoſophers. As we deſcend from the claſs of quadrupeds, to contemplate that of birds, we find the connecting links, which unite theſe two orders into one great chain, very ſhort, and almoſt imperceptible; for, while the flying ſquirrel, the bat, and ſome of the inferior quadrupeds, are invested with the power of flight and with other properties of birds, the oſtrich, dodo, and caſſowary, are, by their enormous ſize, confined to the ground,

* Struthio, Lin. L' Autruche, Buffon.

ground, and indicate, by their habits, a near affinity to the four-footed animals. Thus, as we deſcend from thoſe ſwift and ſlender birds, which are deſtined to move in the higher regions of the air, we find them growing, by gradual, and almoſt imperceptible degrees, leſs agile, and more heavy; till, at length, being wholly deſtitute of the qualities neceſſary for flight, they are incapable of riſing from the ſurface of the earth.

The oſtrich ſeems intended by Nature to connect the claſs of animals with that of birds. While it retains the general reſemblance, and many of the characters of the latter, it no leſs evidently diſplays its affinity to the former, by many of its habits and properties. It is the largeſt of all birds, and, from that circumſtance, is incapable of flight, the great prerogative of the order. Its weight is about fourſcore pounds; its height, from the top of the head to the ground, is ſeven feet; its length, from the beak to the top of the tail, is about the ſame. When walking, it ſeems as tall as a man on horſeback. The plumage of the oſtrich, as well as its weight, is an inſuperable bar againſt its ever riſing into the air. The vanes of the wing-feathers are ſeparate and detached, like hairs, and incapable of making any impreſſion on the atmoſphere. Thoſe of the tail, and, indeed, of the whole body, are of the ſame ſtructure. They are all as ſoft as down, and utterly unfit, not only for flying, but for defending the body of the animal from external injury *. The feathers of other birds have their webs broader on the one ſide, than on the other; but thoſe of the oſtrich have the ſhaft exactly in the middle. The head, upper part of the neck, ſides and thighs, are covered, inſtead of

* Buffon, tome xvi. p. 402.

feathers, with a clear and white kind of hair, which, on the head, ſomewhat reſembles the briſtles of a hog. The thighs of this bird, in which its ſtrength ſeems chiefly to reſide, are large and muſcular; and its hard and ſcaly legs, which are ſupported by two thick toes, have a ſtriking ſimiliarity to thoſe of a goat. Theſe toes are of unequal ſizes; the inner, which is both longer and thicker, being ſeven inches in length, including the claw. The other, which is without a claw, is only four inches *.

The internal ſtructure of the oſtrich exhibits ſtill more deciſive proofs of its affinity to the race of quadrupeds, and of its deviation from that of birds. The heart and lungs are ſeparated by a midriff, as in quadrupeds; and the parts of generation bear, to thoſe of theſe animals, a ſtrong reſemblance and analogy; as do alſo the kidneys, which differ from thoſe of other birds, in not being divided into two lobes †. It has two ſtomachs, the one larger, reſembling the crop of other birds; and the other ſmaller, and conſtructed like the ſtomach in the human ſpecies. The firſt is furniſhed with a large number of muſcular fibres ‡, and ſeems to act by trituration; while the ſecond, which acts by means of a gaſtric liquor, is, on opening the bird, conſtantly found filled with a variety of different ſubſtances, vegetables, grain, fleſh, and even with ſtones, ſometimes as large as a hen's egg.

Though the oſtrich be a bird known from the earlieſt ages, it is probable that we are unacquainted with many intereſting

* It is worthy to be remarked, that the oſtrich is the only bird which has eye-lids. The upper one is moveable, and adorned with laſhes, nearly reſembling thoſe of man.

† Goldſmith's Natural Hiſtory, vol. v. p. 53.

‡ Philoſophical Tranſactions, No. 412. by Dr. Ramby.

intereſting particulars relating to its hiſtory. The authors of the ſacred volume have many compariſons drawn from its manners; and, as an article of food, we know it was forbidden to the *Jews* *. *Ariſtotle* alſo mentions this bird, as no leſs remarkable for its ſize than fecundity. In thoſe parched deſerts of *Africa*, however, where it reſides, and where it flies with ſuch precipitation on the approach of any invader, it can ſeldom become the object of cloſe examination, particularly to men of ſuch curioſity as might induce them to deſcribe its manners. The race of theſe birds, though ancient, ſtill remains pure, and unadulterated by any mixture with other claſſes of animals. Like the elephant among quadrupeds, the oſtrich conſtitutes a genus among the feathered tribes, perfectly deſtinguiſhed by characters equally ſtriking and permanent.

The oſtrich is a bird peculiar to *Africa*, to the neighbouring iſlands, and to thoſe parts of *Aſia* that lie in the vicinity of that continent †. The native country of the rhinoceros and the elephant, of the latter of which the oſtrich is the repreſentative among birds, is alſo the birth-place of this ſingular creature. It is ſeldom found beyond the diſtance of thirty-five degrees from the line, on either ſide; and, as it is incapable of flight, it muſt, like the quadrupeds of theſe latitudes, have always been confined to the ancient continent ‡. It prefers, for its reſidence, thoſe mountains, and parched deſerts, that are never refreſhed by rain; a circumſtance, which corroborates the report of the *Arabs*, that theſe birds never drink. Vaſt flocks of them are ſeen in theſe barren and ſolitary regions. At

* Jer. chap. iv. 3. Micah, chap. i. 8. Levit. chap xi. 16.

† Valliſnieri, tome i. p. 253. ‡ Buffon, tome xvi. p. 439.

a diſtance, they appear like an army of cavalry, and often alarm the caravans that are travelling through them.

The ſpoils of the oſtrich are too valuable a prize to the huntſmen, to admit of his remaining undiſturbed, even in thoſe wild retreats. Among ſome nations, their eggs, their blood, their fat, and their fleſh, have been eagerly ſought, as articles of food. Whole nations have obtained the appellation of *Struthophagi**, from their partiality for this food; and even the luxurious Romans themſelves, as we learn from *Apicius* †, conſidered the fleſh of the oſtrich as a delicacy. The Emperor *Heliogabalus*, ſo juſtly famed for his extravagance and taſteleſs profuſion, cauſed, on one day, the brains of ſix hundred of them to be ſerved up at one meal. At the preſent day, the inhabitants of *Numidia* are ſaid to tame them, to live upon their fleſh, and ſell their feathers ‡. Their eggs are about thirty times heavier, than thoſe of our common hens, and furniſh a plentiful repaſt for eighteen men §. *Buffon*, however, thinks thoſe writers guilty of exaggeration, who have ſtated their weight at fifteen pounds.

The beauty of the plumage of the oſtriches, particularly of the long feathers that compoſe their wings and tail, is the chief reaſon why man has been ſo active in purſuing them into deſerts, at ſo much expence and labour. The *Arabs*, who make a trade of killing them, formerly converted their ſkins into a kind of cuiraſs and buckler. The ancients uſed their plumes, as ornaments for

* Oſtrich-eaters. † Lib. vi. cap. 2.

‡ Belon's Natural Hiſtory of Birds, p. 231.

§ Kolben's Deſcription of the Cape of Good Hope.

for their helmets. The ladies in the Eaſt, make them ſtill an ornament in their dreſs; and our fine gentlemen make uſe of them in decorating their hats *. In *Turkey*, the janiſſary, who has ſignalized himſelf by ſome military atchievement, is allowed to aſſume them as a decoration to his turban; and the Sultan, in the ſeraglio, when meditating conqueſts, and feats of a gentle nature, puts them on, as the moſt irreſiſtible ornament of his perſon.

The ſpoils of the oſtrich being thus a valuable article of commerce, the hunting of that bird, is one of the moſt ſerious employments of the *Arabians*, who train their fleeteſt horſes for the purpoſe. Although the oſtrich be far ſwifter than the beſt courſer, yet, by hunters on horſeback, he is commonly taken; and, of all the varieties of the chace, this is perhaps the moſt laborious. The *Arab*, when mounted, ſtill keeps the oſtrich in view, without puſhing him ſo cloſe, as to make him eſcape to the diſtant mountains; but, at the ſame time, ſo, as to prevent him from taking any food. This is the more eaſily done, as the fooliſh bird takes his courſe in a waving and circuitous direction, which is greatly ſhortened by the hunters, who come up behind, and, relieving each other by turns, thus keep him ſtill running. After two or three days of fatigue and famine, he becomes ſo exhauſted, that the hunters fall upon him, and, in a few moments, deſpatch him, by ſtriking him on the head with cudgels, that his blood may not tarniſh the luſtre of his white feathers †. It is ſaid, that, when he finds all poſſibility of eſcape cut off, the oſtrich hides his head, in the vain expectation, that the whole of his body

* Goldſmith. † Buffon, tome xvi. p. 448.

dy will then be concealed from his purſuers *. There are ſtill other methods of hunting the oſtrich, with dogs and nets; but that practiſed by the *Struthophagi* appears moſt ingenious. They cover themſelves with oſtrich-ſkins; and, paſſing their arms through the necks of them, they counterfeit all the motions of theſe birds. When admitted into their ſociety, they readily ſurpriſe them †.

The oſtriches, though inhabitants of the deſert, and poſſeſſed of prodigious ſtrength, are, eſpecially if taken when young, neither ſo fierce nor difficult to tame, as might be expected. The inhabitants of *Dara* and *Lybia* are ſaid to render them almoſt domeſtic, like herds of cattle, without uſing hardly any other means, than conſtantly accuſtoming them to the ſight of man; to receive from him their food; and to be treated with gentleneſs ‡. The *Arabians* have not, indeed, tamed theſe birds: When they take them, they uſe no endeavours for that purpoſe; but immediately cut their throats, and, making a ligature below the opening, they hang them up by the legs, and, by ſhaking them, make the blood all flow to the neck. When the ligature is taken off, about twenty *French* pounds of blood, mixed with the fat of the bird, flows from the wound; and this they conſider as one of the greateſt luxuries of an *Arabian* entertainment §.

* Plinii, lib. x. cap. 1. † Diodorus Siculus de Fabul. Antiq. Geſt.

‡ Marmol's Deſcription of Aſia, vol. iii. p. 11.

§ Buffon, ubi ſupra.

Section II.

Besides the uſe of their feathers, the oſtriches, in their domeſtic ſtate, are ſaid to be mounted, and rode upon, in the ſame manner as horſes. *Firmius*, an *Egyptian* prince of the third century, uſed them for that purpoſe *; and, in later times, *Moore* aſſures us, that, at *Ivar* in *Africa*, he ſaw a man travelling upon an oſtrich †. *Adanſon* aſſerts, that, at the factory of *Podore*, he had himſelf two oſtriches, that, although young, run faſter than a race horſe, with two negroes on their backs. But, although theſe birds may be ſo tamed, that, like cattle, they will ſuffer themſelves to be driven in flocks, to and from their ſtalls, and even to be mounted, like horſes; yet there is reaſon to apprehend, from their invincible ſtupidity, that they can never be learned to obey the hand of the rider, to comprehend the meaning of his commands, or to ſubmit to his will. For it appears, by *Adanſon's* narrative, that the oſtriches at *Podore*, though they did not run to a great diſtance, ſcampered ſeveral times around the village; and, that they could only be ſtopped by barricading the paſſage. From this intractable diſpoſition, there is reaſon to apprehend, that man will never be able to avail himſelf of the ſtrength and ſwiftneſs of the oſtrich, as he has availed himſelf of thoſe qualities of the horſe.

Tho

* Geſner, p. 573. † General Hiſtory of Voyages, vol. iii. p. 84.

The voracioufneſs of this bird far exceeds that of any animal whatever; for it will devour, and that with equal greedineſs, every thing that it meets with; ſtones, wood, braſs, iron, or leather, as readily, as it will grain and fruit, which, in its native wilds, are probably its principal food *. Thoſe diſſected by *Warren* and *Ramby* had their ſtomachs ſo crammed with theſe heterogeneous ſubſtances, that they were aſtoniſhed, that theſe animals were able to digeſt ſuch a maſs. The fact is, notwithſtanding the marvellous accounts of this bird's digeſtive powers, that iron and other hard ſubſtances paſs through it, without undergoing a greater change by the action of its ſtomach, than they are known from experience to undergo in paſſing through the ſtomach and inteſtines of the common hen or turkey. Whether by trituration, or by means of acid, it is not, perhaps, yet fully aſcertained; but it is a well eſtabliſhed fact, that all metals loſe ſomewhat of their weight, when expoſed to the action of the ſtomach of birds.

The cauſe of the inſatiable voracity of the oſtrich is the largeneſs of its ſtomachs, and the neceſſity it is under of filling them: Its ſwallowing indiſcriminately whatever comes in its way, ariſes from its want of taſte and ſmell. The tongue and mouth are covered with a ſoft cartilaginous ſubſtance, which renders them inſenſible to the particles of any body that is applied to them. So obtuſe and dull is its ſenſe of ſmell, that this bird will devour what is perfectly poiſonous. *Valliſnieri* ſaw one, that had died from having ſwallowed a large quantity of quicklime †.

The oſtrich is ſcarcely leſs a debauchee than a glutton; for he is ſaid to be exceſſively addicted to venery. He obſerves,

* Philoſophical Tranſactions, No. 394.

† Valliſnieri, tome i. p. 239.

ſerves, however, a ſtrict connubial fidelity to his female *; a circumſtance, which is contrary to the uſage of moſt of the heavy birds. The ſeaſon, at which oſtriches lay, varies with the temperature of climate. Thoſe on the north ſide of the line, begin about the firſt of July; while ſuch as inhabit the ſouth of *Africa*, defer it till the latter end of December. Climate and ſituation have alſo a great influence on their manner of incubation. In the torrid zone, the oſtrich is contented with depoſiting her eggs in a maſs of ſand, careleſsly ſcraped together with her feet. There they are ſufficiently heated by the warmth of the ſun; and need the incubation of the female, only for a little during the night †. But although the oſtrich be but little engaged in hatching her eggs, ſhe diſplays, by continually watching for the preſervation of her naſcent progeny, all the ſolicitude of a tender mother. There is a method of catching them, founded upon their parental affection, which conſiſts in planting, around the neſt, a number of ſharp pales, upon which the female ſtabs herſelf, in her haſte to return to her eggs ‡. In proportion to the coldneſs of the climate, the oſtrich hatches with more aſſiduity; and it is only in the warm regions, where there is no danger of her eggs being chilled, that ſhe leaves them by day; a circumſtance, from which ſhe very early incurred the reproach of being deſtitute of affection. So far is this from being true, that ſhe continually watches for their preſervation, ſo long as they remain in a helpleſs ſtate, which is longer or ſhorter, according to the climate. Neither the ſize of the eggs of theſe birds, nor the time

* Thevenot, tome i. p. 313. † Hiſt. Gen. des Voyages, tome ii. p. 48.
‡ Diod. de Fab. Antiq. Geſt.

neceſſary for hatching them, nor the number of their young, are exactly aſcertained. The moſt probable accounts ſay, that they produce twice or thrice in the year, each brood containing ten or twelve young. *Willoughby* * aſſigns them no leſs than fifty eggs in a year; a number, which, at the weight of fifteen pounds each, would make the bird produce ſeven hundred and fifty pounds weight of eggs; too much, ſurely, for an animal weighing only eighty pounds †.

Section III.

The Emu ‡.

This is a bird ſo nearly allied to the oſtrich, that it may be conſidered as his repreſentative in the New Continent, to which it peculiarly belongs. The emu inhabits *Guiana*, *Braſil* §, *Chili*, and thoſe immenſe foreſts that extend nortward from the mouth of the river *Plata*; and is found as far ſouth as the *Magellanic Straits*. Formerly theſe birds were more widely ſpread over *South America*; but, in proportion as men grew more numerous, theſe timid animals fled from their habitations, or fell beneath their ſuperior power ||.

The emu, being next in ſize to the oſtrich, is by far the largeſt bird in the New World. The old ones are ſix feet

* Ornothologia, p. 105.
† Buffon, ubi ſupra.
‡ Le Touyou, Buffon.
§ Marcgrave, p. 190.
|| Charlevoix, tome i. p. 331.

feet high ; and *Wafer*, who meaſured the thigh of one of the talleſt, found it equal to that of a man *; while the leg was three feet long. It has the long neck, ſmall head, and flat beak, that diſtinguiſh the oſtrich; but, in other reſpects, it has a greater reſemblance to the *caſſowary*, a bird of the ſame genus, of which a deſcription immediately follows. The ſhape of the body is oval ; and, when covered fully with feathers, it approaches to rotundity †. Its wings are ſo ſhort as to be uſeleſs for flight, but, like thoſe of the oſtrich, may probably give ſome aſſiſtance in running. The back and rump are covered with long feathers, which hang down over the anus, and form what, in this animal, is the tail. The whole upper part of the body is covered with grey plumage, and the under with white. The toes of this bird are three, all before: Behind, there is a kind of heel, which ſupports the bird, and is ſuppoſed to aſſiſt it in running. It poſſeſſes the ſame remarkable velocity which characterizes the oſtrich; and its running is attended with a ſingular motion of its wings. It raiſes one, for ſome time, above the body, and then drops it, to erect the other, and hold it, for a while, in the ſame ſtrange poſition. Such is their velocity, that the ſavages are obliged to lay ſnares, in order to catch them ; for they are in vain chaced by the ſwifteſt dogs ‡.

The emu ſhews the ſame indiſcriminate voracity as the oſtrich. Like it, it devours ſtones, iron, and hard ſubſtances ; and, as this is a quality peculiar to all the granivorous tribes, it is probable that fruit, grain, and vegetable ſubſtances are the natural food of this bird §.

* Voyages de Dampiere, tome iv. p. 308.

† Buffon, tome xvi. p. 456. ‡ Idem ibidem.

§ Marcgrave Hiſt. Nat. Braſil.

The fables told of the male of this bird compelling a number of females to lay in the ſame neſt, and then charging himſelf with the taſk of incubation, deſerve no credit; nor is the circumſtance leſs romantic, of his ſeparating, from the reſt, two eggs, upon which he does not ſit, but allows to addle, that, by breaking them in that ſtate, he may collect inſects to feed the young *. It is probable, that the eggs of the emu, like thoſe of the oſtrich, are hatched partly by the heat of the ſun, and partly by the incubation of the bird. The young, ſays *Wafer*, after they are firſt excluded from the ſhell, are ſo familiar, that they follow the firſt perſon they meet; but, on growing older, they acquire experience, and become more ſhy and ſuſpicious †. The fleſh of the emu, when young, is reckoned good eating; and it might, perhaps, be improved, and rendered more abundant by domeſtication, as has been that of the turkey or common hen, which, like the emu, are indigenous in the burning regions of the torrid zone. The former, in particular, originally inhabited the ſame tracts of the *American* continent ‡.

The Caſſowary §.

This bird is a native of the iſland of *Java*, whence it was firſt brought into *Europe* in 1597. Its habitation begins in thoſe temperate climes, which are contiguous to the precincts of the emu and oſtrich; and, as it occupies a

* Nieremberg, Hiſt. Nat. p. 217.

† Voyages de Dampiere, tome iv. p. 308.

‡ Buffon, tome xvi. p. 462. § Le Caſoar, Buffon.

Plate XXXIII

BLACK OSTRICH

a region more favourable to the multiplication of the human race, its numbers are continually decreasing in proportion to the increase of the number of its destroyers.

Next to the ostrich and emu, the cassowaries are the largest birds of the feathered race. They are of various sizes. That one described by the gentlemen of the Academy of Sciences in *Paris*, was five feet and an half from the bill to the claws. The *Dutch* compare the bulk of these birds to that of a sheep. From the shortness of the legs and neck, they are not so tall as the ostrich; but the body has a more heavy and clumsy appearance to the eye *. The most remarkable trait in the appearance of these birds, is a sort of helmet upon the head, which reaches from the base of the bill to the crown: It is nearly three inches in height, and, at the root, is three in thickness †. The middle of the upper eye-lid is furnished with a row of black hair, which gives the animal a kind of wild aspect, that the large aperture of the beak renders menacing and fierce. The head, and upper part of the neck, are almost naked, being only here and there interspersed with blackish hairs, that partially cover a blue wrinkled skin. The feathers that cover the body of the cassowary, as well as those for flight, are all of one kind, and of the same blackish colour. They are generally double, having two shafts that grow from one short trunk, which is fixed in the skin. The small fibres of which the vanes are composed, have so little adhesion to each other, that the bird, when viewed at a distance, seems clothed with hair, rather than with feathers. The wings of the cassowary are still shorter than those of the ostrich, and, by consequence, still more unfit for flying. They are

* Buffon, tome xvi. Le Casoar. p. 464. † Brisson, tome v. p. 12.

are furniſhed each with four hard pointed feathers, reſembling darts, of which the longeſt, which is eleven inches, is a quarter of an inch thick at the root. Its feet are alſo armed with large black claws, which give the animal an appearance of being formed for hoſtility. But, though ſupplied with weapons that might render it very formidable to the reſt of the animal world, the caſſowary leads a peaceable and inoffenſive life. It never attacks others; and nothing ſhort of neceſſity will make it even defend itſelf. When it does defend itſelf, it does it by kicking like a horſe, and by puſhing down its aſſailant by running againſt him.

The movements of the caſſowary, when travelling, are aukward, and apparently heavy. It ſeems to give a kind of kick backward, for every hop it makes forward; but, ſo much is ſwiftneſs the prerogative of birds, that this one, which is among the dulleſt of the tribe, will outrun the fleeteſt ſteed *. It is diſtinguiſhed by the ſame voracity, which characterizes the emu and oſtrich, the other birds of this genus. It ſwallows every ſubſtance that is offered to it, that is not too large for the circumference of its throat; and poſſeſſes the faculty of vomiting up its food, when diſagreeable, with the ſame deſpatch with which it ſwallowed it.

From the ſtructure of the parts of generation in this genus of birds, it appears, that the act of copulation is performed by means of a *penis intrans*, and not by ſimple compreſſion, as takes place among the ſmaller tribes †. The female, after fecundation, lays a number of aſh-coloured ſpotted eggs, about thirteen inches in circumference one way, and ſix the other.

* Voyages des Hollandois, tome vii. p. 349.

† Buffon, tome xvi. p. 476.

SECTION IV.

GENUS LVII.—*The Dodo* *.

BUFFON has given a very lively and picturesque description of this singular bird, which *Goldsmith* has servilely copied, as is too often his practice, without making the smallest acknowledgment. "Swiftness," says he, "has generally been reckoned the distinguishing attribute of birds. If, however, it be made a character "essential to that order, the dodo will have no title to "be admitted into it. Far from exciting the idea of "swiftness by its proportions, it appears to have been "formed on purpose to strike the imagination, as the "most clumsy and unwieldy of all beings. Represent "to yourself a massive, and almost cubical body, but "barely supported upon two short and thick pillars, and "overtopped by a head and neck of so grotesque a form, "that you would take them for the design of some *caricature* painter. The head consists almost entirely of two "large chaps, that open behind the eyes, almost as far "as the ears; so that, when the bird gapes, it seems almost all mouth. The bill is of an extraordinary length "and thickness; and both mandibles are concave towards "the middle, but swelling towards the end, and hooked "at the points oppositely, like two pointed spoons "laid

* Didus, Lin. Le Dronte, Buffon.

" laid together by the backs. From all this, there re-
" ſults a ſtupid and voracious phyſiognomy, which is
" increaſed by a bordering of feathers around the baſe
" of the beak, which ſpreads over the face, like a cowl,
" and completes this picture of deformity."

" Bulk, which in other animals implies ſtrength, in
" this only contributes to inactivity. The *oſtrich*, *emu*,
" and *caſſowary* are not more capable of flying, than the
" dodo. They, however, are ſwift in running; whereas
" this bird, as if oppreſſed with its own weight, poſ-
" ſeſſes hardly ſufficient ſtrength to drag itſelf along.
" One would imagine, that this bird, which reſembles
" the ſloth among quadrupeds, has been formed of ſome
" rude and ill organized matter, into which the principles
" of life have been infuſed with too ſparing an hand. The
" dodo is furniſhed with wings; but they are too weak
" and too ſhort to raiſe it into the air. It has a tail; but
" this tail is diſproportioned, and out of its place. One
" would take it for a tortoiſe, that had muffled itſelf up
" in the ſkin of a bird; for Nature, in granting it theſe
" uſeleſs ornaments, ſeems to have intended to add em-
" barraſſment to weight, aukwardneſs of motion to un-
" wieldineſs of ſize, and to render this clumſy figure ſtill
" more diſguſting, by preſenting it under the image of
" a bird."

Dodoes were firſt diſcovered by the *Dutch* in the iſle of *France*, which, with the adjacent iſle of *Bourbon*, ſtill continues to be the only place in which they are known to reſide. The forbidding traits of their external appearance, as well as the unſavoury taſte of their fleſh, induced them to call them, in their language, the *nauſeous birds* *. The dodo is ſurpaſſed

* Buffon, tome xvi, p. 482.

ſurpaſſed in ſize only by the three birds laſt deſcribed; for it is larger, than either the ſwan or the turky. Its feathers are, in general, ſoft, and their prevailing colour is grey; more deep upon the upper, and clearer upon the lower parts of the body. The legs and toes are yellow: And of the latter, three are forward, and one backward *. It has commonly ſtones in its crop; the largeſt of which are of the ſize of a man's fiſt. The *Dutch* travellers ſuppoſe, that theſe are formed in the inteſtines †: but *Cluſius*, with more reaſon, alleges, that they are ſwallowed by this tribe for the ſame purpoſe, for which they are ſwallowed by the other tribes of granivorous birds ‡.

The *Solitaire*, and bird of *Nazareth*, deſcribed by *Carré* §, *Leguat* ||, and *Cauche* ¶, appear to have a very near affinity to the *dodo*; but ſo imperfectly are they hitherto known, that it is not yet aſcertained, whether their deſcriptions belong to three different ſpecies, or to the ſame bird. The *Solitaire*, according to *Leguat*, is forty pounds in weight; and of a grey colour mixed with brown. The females are remarkable for their neatneſs in the poſition and adjuſtment of their feathers; and their motions are graceful. By *Carré's* account, they are of a brown approaching to yellow; and they appeared to him remarkably beautiful. In theſe reſpects, it muſt be allowed, that this bird differs from the dodo: Both, however, inhabit the ſame iſles; both are incapable of flight; all the three are equally voracious, and indiſcriminately de-

* Edward's figures, 294.

† Voyages des Hollandois aux Indes Orient. tome iii. p. 214.

‡ Cluſius Exotic. p. 100.

§ Voyage en deux iles deſertes des Ind. Orient. tome i. p. 98.

|| Voyage of Carré, cited, Hiſtoire gen. des Voyages.

¶ Deſcription de l'ile de Madagaſcar, p. 130.

vour all that is offered them. They have, each, the ſame kind of ſtones in their crop; and the general ſtructure of their bodies is ſimilar. But the conjectures of naturaliſts will never illucidate is matter: It muſt be cleared up by future obſervations, made upon the ſpot. The *Solitaire* is deſcribed as exceedingly ſhy, and very ſeldom in the ſociety even of its own ſpecies. It builds its neſt upon a large maſs of leaves, which it collects for the purpoſe *. The female lays but one egg, at leaſt produces but one bird, after having hatched for ſeven weeks.

* Buffon, ubi ſupra.

CHAPTER VIII.

SECTION I.

ORDER VII.—*Waders.*

THE innumerable tribes of inhabitants, with which Nature has peopled the air, are divided, according to the places of their uſual abode, into *land* and *water fowls*. To the firſt, which we have hitherto been contemplating, ſhe has allotted the dry land for their reſidence; and, to the ſecond, the extenſive tracts of the ſea. Between theſe two great diviſions, however, ſhe has placed a variety of intermediate tribes, which partake of the nature of both, and reſide ſometimes on the one element, and ſometimes on the other. Theſe have been termed *waders*, or *cloven-footed water-fowls*, by the naturaliſts. Thus, not only on the land and water, but even on the confines between them, life is ſo much multiplied and varied, that the imagination can find no room to add to the riches of Nature, or to increaſe the wonders of exiſtence.

Of thoſe birds that are completely aquatic, perhaps an equal number might be domeſticated and rendered uſeful to man, as of the land birds. The ſucceſsful experiments that have, long ſince, been made upon the ſwans, geeſe, and ducks, ſerve at once to illuſtrate this aſſertion, and to demonſtrate the advantages that might be obtained by farther extending the dominion of man over

this numerous claſs of birds. To this, however, there are many obſtacles: For man, before he can become maſter of birds that are inhabitants equally of the ſea and the air, muſt make a double conqueſt. Free, as theſe are, upon both of theſe vaſt elements, they ſeem deſtined, for ever, to elude his power, and to maintain their native independence. The birds that are purely aquatic, have no farther connection with the land, than is neceſſary for depoſiting the fruits of their loves, and for rearing their young *.

It is accordingly by means of this love for offspring, ſo natural to theſe creatures, that we have been able to bring them from the ſea, and attach them to the habitations of men. Eggs of water-fowls, taken from the ſhore, and hatched under a hen, produce a race, which, for the firſt generation, is ſhy and timid. After, however, having taſted the ſweets of love in this domeſtic aſylum, theſe birds, and ſtill more their deſcendents, become tame and familiar. In a few generations, all regret for the loſs of liberty is effaced; and they become reconciled to a captivity, in which they no longer find any inconvenience.

The aquatic tribes, though they be plentifully furniſhed with oil, which is excreted near their tails, and ſpread by them over their feathers, are yet incapable of always reſiſting the effects of water. Their plumage becomes moiſt, and pervious to that element, when they are long without viſiting the ſhore: It muſt, at times, therefore, be expoſed to the dry air, in order to render it again impervious to water. Of almoſt all palmipede birds, the male is larger than the

* Vide Buffon, a l'article Canard, tome 24.

the female; but not in the ſame proportion, that we have obſerved to take place among the rapacious tribes.

As the duck is the moſt uſeful of all the inhabitants of the water, ſo Nature has happily multiplied that genus more than any other on that element. It appears in a thouſand varieties; and the numbers of each ſpecies far exceed all computation. The number of water-fowls that frequents the ſhores of *Europe*, is prodigious: But ſtill it bears no proportion to thoſe immenſe flocks, that ſwarm upon the ſhores of the *American* continent; where the numbers of the human race are fewer, and their dominion over the animal world far leſs extenſive, having been, till lately, wholly unacquainted with the uſe of fire-arms.

As upon land, ſo upon water, there are many birds that may be deemed rapacious, if the capacity of devouring other animals merit that title. Although few of the water-fowls prey upon their own kind, yet the far greater part of them ſubſiſt by eating fiſh. The granivorous aquatic birds, are few in compariſon to thoſe which prey upon the finny tribes; Nature having adjuſted their appetite to the ſpecies of food moſt abundant in that element, in which they reſide.

The voice of the aquatic fowls, differs from that of the land birds as remarkably, as their food: It is louder, more harſh, and monotonous, in the former tribes, than in the latter. Probably there may be a cauſe for this peculiarity. Amidſt the noiſe of the raging waves, the gregarious kinds would ſoon be diſperſed from each other, and periſh; were they not thus capable of ſounding the alarm to the kindred tribes, when about to ſtray from their ſociety, or to encounter danger. The melody of the ſwan, may ſeem an exception to what is here advanced; but,

but, as *Buffon* alleges with great juſtice, it is a melody of poetic fiction.

The water fowls are moſtly all fit for food, though the fleſh of none of them be ſo palatable, as that of the gallinaceous or paſſerine orders. It uniformly contracts a rancid and oily taſte, from the nature of the food upon which theſe birds ſubſiſt. This taſte ſtill, in ſome meaſure, remains in the fleſh of the gooſe and the duck, which all the arts of domeſtication are not able to remove. It is, however, much leſſened by confining theſe birds to the land, and feeding them with grain.

There are many other points of diſtinction, in which we might view the land and water birds. The latter have a far greater facility of ſpreading from one continent to another, from their capacity of travelling by water, and of relieving their flight by alighting on that element. We find, accordingly, that moſt of the aquatic tribes are common to both the Old and the New World; and that they have even been able to make their way into thoſe diſtant iſlands, towards the extremities of the globe, that ſeemed formerly to be loſt in the immenſe ocean, and, from their barrenneſs, to forbid the approach of every animated being. And, what is remarkable, they are equally numerous in the cold and high latitudes, as at the equator. Nor are the palmipede water fowls alone thus able to ſpread over the globe, but alſo the waders; becauſe theſe, from their reſiding upon the ſhore, enjoy a more equal temperature, than what is experienced by birds which inhabit the interior parts of the land, and, conſequently, can penetrate farther, either to the north or to the ſouth.

The aquatic tribes ſeem not even bounded, in their reſidence, by the limits of the land itſelf. The floating mountains of ice, towards the poles, afford them a retreat

treat during tempeſtuous weather, and a cradle for their young. They require no grain, or vegetable food, which Nature, in theſe frozen regions, cannot produce. Hence they have been ſeen fixing their reſidence upon theſe iſlands of ice, in the ſame manner, as upon land. There they ſleep; there too they ſometimes hatch their young *.

The ſeas, in which fiſhes are moſt abundant, are moſt fully peopled with theſe water fowls; as the fertile parts of the earth, are moſt copiouſly repleniſhed with land birds. Some of the rivers in *America*, in which fiſh are plentiful, are covered with birds. In ſeveral iſlands too, at a ſmall diſtance from the ſhore, the ſoil conſiſts, to a great depth, of nothing but the dung of birds. This is the caſe in ſome of the weſtern iſles of *Scotland*, and alſo on the coaſts of ſome parts of *Greenland*; where aquatic birds are ſo numerous, that the natives drive them into bags, and deſtroy them in thouſands. There, and in the iſland of *Faro*, they conſtitute a large proportion of the food of the inhabitants.

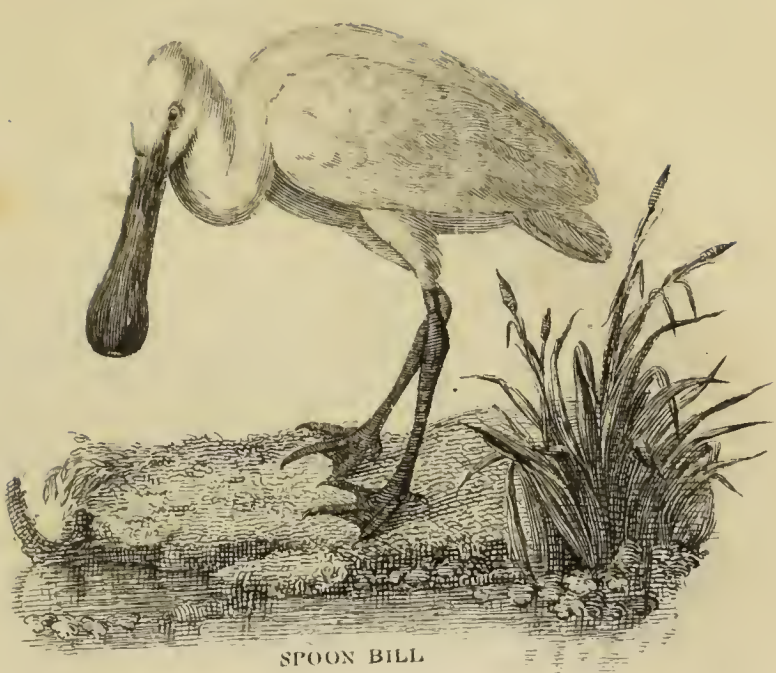
As the extent of the ocean is, perhaps, greater, than that of the land, and the fund of ſubſiſtence which it contains, is in proportion; the number of water-fowls, probably, exceeds that of the land birds, although the ſpecies be leſs various. The tribes of waders ſeem, by their external ſtructure, fitted to live upon land; but they are endowed with appetites, that attach them to the waters: While they derive all their food from the marſhes and fens, they are unable to ſearch for it upon the ſurface of the deep. Their ſtructure is happily accommodated to this ſituation; for they are formed with long legs, naked above the knee, to admit of their travelling

* Vide Cook's Voyages.

velling in ſhallow water, in queſt of food: And, in thoſe that feed upon fiſhes, the neck is diſproportionably long, to enable them to grop for them, without immerſing the whole body. Thoſe that ſearch in the mud for minute inſects or worms, ſuch as the ſnipe and wood-cock, have ſlender weak bills, and olfactory nerves of ſuch exquiſite ſenſibility, that, even when their prey is out of the reach of their eyes, they are directed to it by its ſmell *. Of the waders ſome have their toes divided to their origin; others have them connected by a ſmall membrane, as far as the ſecond joint: The firſt are cloven-footed, and the ſecond ſemipalmated. The bodies of this order of birds, are light and ſlender. Thoſe that live upon mud, and the inſects or worms depoſited there, are deemed a delicate food; while ſuch as live upon fiſh, contract a heavy and oily taſte, ſimilar to that of their food. In their endowments, they ſeem inferior to thoſe orders which we have already reviewed: Their neſts are conſtructed with leſs ingenuity, than thoſe of the paſſerine tribes. They are not poſſeſſed of the courage of the rapacious birds, or of the docility of the poultry kinds. None of the waders, accordingly, has been reduced into a domeſtic ſtate, or admitted to ſhare the ſociety and protection of man.

* Pennant's Genera of Birds, p. 41.

Plate XXXIV



SPOON BILL

CRANE

GENUS LVIII.—*The Spoonbill* *.

THIS family of birds has obtained its name from the broad, flat, and thin ſtructure of the bill, which widens, towards the end, into a circular form, reſembling a ſpoon. This inſtrument, ſo ſingular in form, is equally ſo in regard to the ſubſtance of which it is compoſed: It is not hard, like the beak of other birds, but ſoft and flexible, like leather †. It is ſeven inches in length, and near two in breadth, towards the point. All around the upper chap, there runs a rim, which covers the lower one. In the *European* ſpecies both mandibles are black, and ſometimes grey: But the beak of the *American* ſpoonbill, is of a red colour, reſembling its feathers. Theſe birds are nearly of the ſize of an heron. Their neck and legs, however, are much ſhorter, which gives them a ſmaller appearance: For, while the heron is four feet high, the ſpoonbills are not more than three. *Briſſon* and *Linnæus* have, each, three ſpecies of the ſpoonbill. The *European* kind is covered with white plumage, except on the throat and upper part of the neck, which are naked. Behind the head, there are a few long ſtraight feathers, which form a kind of hanging creſt ‡. The two *American* kinds are ſmaller: The one is of a roſe colour, and the other of a deep crimſon red. The roſe-coloured ſpoonbills inhabit *Guiana*

* Plata lea, Lin. La Splatule, Buffon.

† Buffon, tome 22. page 430. ‡ Briſſon, tome v. p. 351.

and *Braſil*; the crimſon-coloured, *Mexico* and *Jamaica*. On the *American* continent, theſe birds are generally adorned with more lively tints, and greater brilliancy of colouring, than on the continents of the Old World. There, however, the clumſy figure of the animal, upon which theſe are laviſhed, deſtroys their effects; for, with ſo ſtrange a beak, and ſo groteſque a viſage, the glaring feathers of the ſpoonbill ſeem only to add ſplendor to deformity.

The different ſpecies belonging to this tribe, all inhabit the ſea coaſts; their reſidence in mediterranean regions, on the borders of lakes and rivers, being only temporary; and, probably, when they are travelling from one diſtrict to another. They are ſpread extenſively along the ſhores in moſt parts of *Europe* and *America*. Some places are famed for the vaſt flocks of theſe birds, which reſort to them; ſuch as the marſh, in the neighbourhood of *Leyden*, called *Sevenhuis*. Thither they croud in great numbers, and breed in company with the herons, cormorants, and other aquatic birds of the ſame order, which ſeem to have choſen that ſpot for their general rendezvous *.

Spoonbills conſtruct their neſts of twigs upon the ſummit of tall trees; generally near the ſea-coaſt. During the ſeaſon of nidification, they are extremely vociferous: At other times, they only return in the evenings, to ſleep in the foreſt †. The brood conſiſts of three or four young, which are fed with aquatic inſects, worms, or fiſh, which conſtitute the ſubſiſtence of the greater part of the waders. Spoonbills are far from being ſo ſhy, as moſt of the aquatic tribes; whether in the water, or when perched, they allow the ſportſman to approach within gunſhot.

* Albin. vol. ii. p. 42. † Belon. Ornithol.

Section II.

Genus LIX.—*The Screamer* *.

The *French* naturaliſts have retained the names of *Kamichi* and *Cariama*, that were originally applied to the two ſpecies of which this genus is compoſed, by the ſavages of *Guiana* †. Amid the piercing cries of ravenous birds, the hiſſing of ſerpents, and the croaking of toads, which interrupt the ſilence of the deſerts of *South America*, and increaſe the horror of theſe dreadful ſolitudes; there is raiſed, at times, a voice ſo loud and ſcreaming, that it ſeems to impoſe ſilence upon all animals, and makes the lakes reſound with its echo ‡. Such is the account, which an eloquent naturaliſt gives of the voice of the ſcreamer; a voice, which, from its extraordinary loudneſs, diſtinguiſhes this bird ſufficiently from the whole feathered creation. But, beſides its tremendous voice, the ſcreamer is rendered ſtill more formidable, by a ſharp pointed horn, about three or four inches long, which riſes from the crown of the head; and by two ſtrong ſpurs, with which the wings are armed. The offenſive armour of the moſt warlike birds, when compared to that of the ſcreamer, dwindles into inſignificancy. When the wings are folded, the two ſpurs upon each are directed for-

* Palamedea, Lin. Le Kamichi, Buffon.

† Briſſon, tome v. page 516. ‡ Buffon, tome xxii. page 338.

ward, and appear to be elongations of the bones of which they are formed. The upper ſpur, on each wing, is two inches long, bending a little upwards, and terminating in a ſharp point; the lower one is not more, than half an inch, in length, but nearly as thick. All thoſe protuberances are of an horny ſubſtance, and, towards the baſe, covered with a kind of caſe, like the barrel of a large pen. With this formidable apparatus of offenſive armour, the ſcreamer is the moſt gentle of all animals: He never attacks another bird; his depredations being confined to the worms, upon which he feeds. Such fidelity and attachment do theſe birds diſplay, that the male and female continue inſeparably together till death; and that, when one of them dies, the affection which united them, and pangs of grief for its loſt partner, are long felt by the other. It is even ſaid, that the diſconſolate ſurviver wanders conſtantly around the place where its partner died, till, conſumed with grief, it die alſo *.

The firſt ſpecies of ſcreamer above deſcribed, is about the ſize of a large ſwan. The head and upper part of the neck are covered with ſhort briſtly feathers; the reſt of the plumage, being longer, and of a dark brown colour mixed with a ſhade of green. There is, however, another ſpecies, called the *cariama*, which is not larger than a heron; and which has, inſtead of the horn riſing from the crown of the head, a feather ſtanding up like a creſt. The whole plumage of this ſpecies is grey covered with brown; and nearly reſembles that of the falcon. The ſcreamer

* Una mortua, altera a ſepultura nunquam diſcedit. Marcgrave Hiſt. Nat. Braſ. page 215.

ſcreamer and cariama are, by the greateſt part of naturaliſts, claſſed into two ſeparate genera †. In their general air and form, as well as manner of life, there is a ſimilarity that indicates them both to belong to one tribe. They both live on marſhy ground, and are ſupported, probably, by the ſame kinds of food. They are equally diſtinguiſhed by the nakedneſs of their legs; and the cariama has a loud and piercing voice, though inferior, in ſtrength, to that of the ſcreamer. In *America*, where it reſides, it is by its voice diſcovered by the hunters, who purſue it for its fleſh; and have begun to domeſticate it from the ſame motive ‡.

† Vide Briſſon and Buffon.

‡ Manſuefacta æque ac Silveſtris, aſſatur, et coquitur. Piſonii. Hiſt. Nat. et Medic. Ind. p. 81.

GENUS LX.—*The Jabiru* *.

IN making the *Jabiru* a diſtinct genus of birds, we are juſtified by the examples of *Linneus* and *Pennant*†. *Buffon* and *Briſſon* have, indeed, claſſed it in the ſame tribe with the ſtork, from which it differs conſiderably, both in ſize, and in the form of its bill. In multiplying the reptile tribes, which ſwarm upon thoſe watery tracks, bordering upon the *Amazons* and *Oroonoko*, Nature, at the ſame time, has not only multiplied thoſe birds, which are their deſtroyers, but alſo proportioned their ſize and ſtrength, to thoſe of the enormous ſerpents they are to devour ‡.

The jabiru, one of the largeſt birds in *Guiana*, is evidently deſtined for this purpoſe: It is more than four feet high; it is ſix in length, from the tip of the beak to that of the claws; and is entitled to the firſt rank in the order of waders. The large black bill of this bird, is a formidable weapon, being above thirteen inches long, and, at the baſe, three in thickneſs. It is upon a large head; is ſupported by ſtrong muſcles inſerted into its baſe; and conſiſts of a horny ſubſtance, bent upwards at the top. The head, and two-thirds of the neck of the jabiru, are covered with a black and naked ſkin, thinly interſperſed with a few

* Mycteria, Lin. Le Jabiru, Buffon.

† Vide Syſt. Nat. and Genera of Birds.

‡ Buffon, tome xxii.

few grey hairs. The plumage on the lower part of the neck is red, and gives the bird the appearance of wearing a large collar, while it affords a fine contraſt with the reſt of the plumage, which is pure white. Theſe birds grow fat in the rainy ſeaſon, and are then killed by the natives, who reckon them good eating.

Genus LXI.—*The Boatbill* *.

The character by which this genus is diſtinguiſhed, is a ſingularly broad and flat bill, which has a ridge along the middle of the upper mandible, reſembling a boat reverſed; a circumſtance, from which this tribe derives its *Engliſh* name. Both mandibles of this enormous beak, are ſharp at the edges; are of a very hard ſubſtance; and are four inches from the baſe to the point. With an inſtrument ſo heavy and ſharp, the boatbill might prove a formidable enemy to the other birds. He follows, however, the peaceable dictates of a gentle nature, confining himſelf to the banks of marſhes and rivers, where he perches upon the aquatic ſhrubs, and watches the fiſh. No ſooner does his prey appear, than he darts upon it by plunging into the water, whence he quickly raiſes himſelf without reſting upon the ſurface †. The viſage of this bird, which is more diſmal and gloomy, than that of the heron, is rendered more wild and fierce from the poſition of the eyes, which are cloſe upon the baſe of the bill.

The boatbill is extremely ſhy; and reſides, generally, far from the inhabited parts of the country. It inhabits *Guiana* and *Braſil*, where it is ſometimes taken. When caught, it makes a cracking noiſe with its bill, and either

* Cancroma, Lin. Le Savacou, Buffon.

† Buffon, tome xxii. page 444.

ther from anger or agitation, raiſes its long feathers, which commonly hang, in a bunch, from the head down upon its back, in a waving and looſe manner, like the mane of an horſe. There are three ſpecies of theſe birds, the *grey*, the *brown*, and the *variegated* *: But theſe ſo intimately reſemble each other, in their economy and external form, that *M. Buffon* juſtly ſuppoſes they may be reduced to one; and this ſuppoſition is the more probable, becauſe Nature, in all her ſingular deviations, and apparent irregularities, is ſparing of variety. It is while in her ordinary track, that ſhe greatly multiplies the ſpecies: Her ſportive productions are almoſt as few, as they are extraordinary.

* Vide Briſſon, tome v. page 206.

Section III.

Genus LXII.—*The Heron* *.

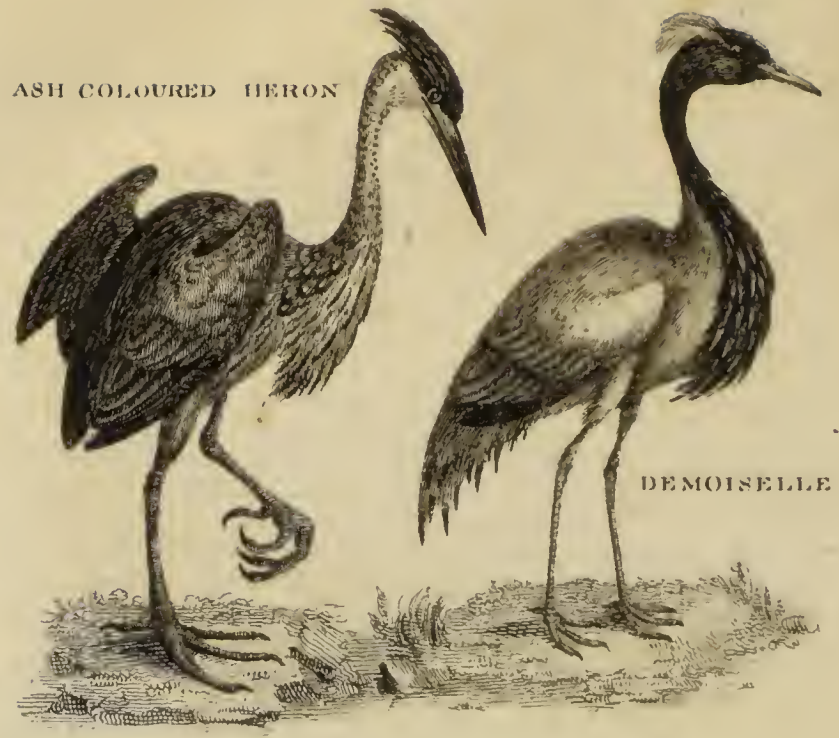
The tribe of herons is very numerous, and almoſt univerſally ſpread over the whole globe; ſuch is their power of accommodating themſelves to all climates. Birds of this ſpecies are diſtinguiſhed from ſtorks or cranes by the ſmallneſs of their ſize, and by the length of their beaks, which are greater in proportion, than thoſe of theſe birds. *Briſſon* enumerates no fewer than ſixty kinds, which properly belong to this genus; and *Linneus* twenty-ſix. Of theſe there are only four that are natives of *Britain*, the *common heron*, the *creſted heron*, the *bittern*, and the *great white heron*. They all agree in their manner of life; which is rendered miſerable by toil and hunger. The very appearance of the heron, according to *Buffon*, preſents the image of ſuffering, anxiety, and indigence †.

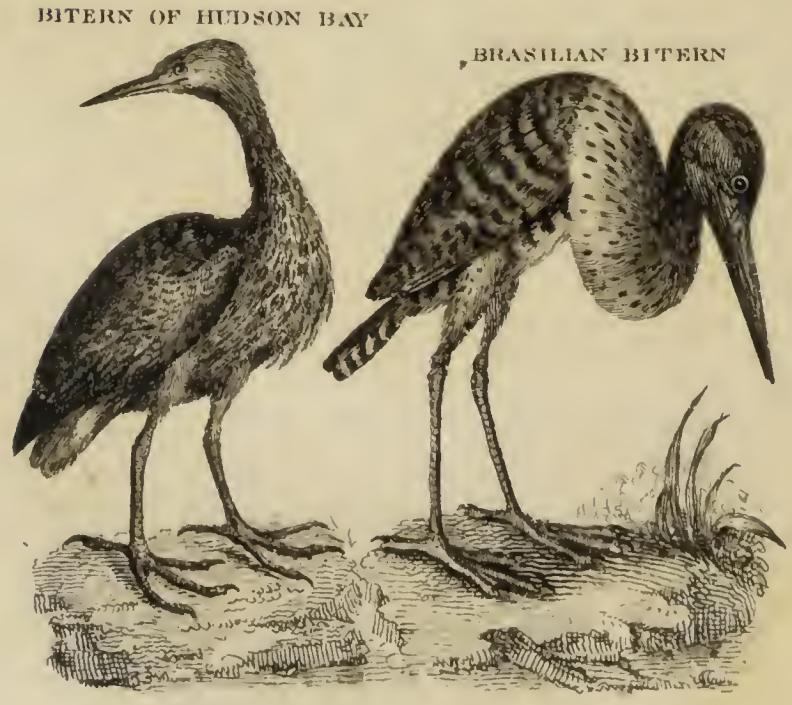
The common heron is three feet two inches in length, and, from the tips of the wings, five feet three inches broad; but, with this great extent of limbs, the body is exceedingly ſmall, weighing ſcarcely three pounds and an half. The bill, from the baſe to the top, is five inches; and the plumage of the whole body, which conſtitutes the chief part of its bulk, is

* Ardea, Lin. Le Heron, Buffon.

† Hiſt. Nat. des Oiſeaux, tome xxii. page 343.

Plate XXXV


ASH COLOURED HERON
DEMOISELLE


BITERN OF HUDSON BAY
BRASILIAN BITERN

is of a duſky grey. This bird preys upon fiſh and frogs; but, as it is incapable of purſuing them into deep water, it muſt often ſuffer from hunger *. From this circumſtance, perhaps, ariſes that conſumptive and lean habit of body for which it is remarkable, and which the greateſt abundance of food is afterwards unable to remove.

Struck with the idea of the wretchedneſs and toil of the heron's life, the ancients ſay, that it feels pain even in the act by which its kind is perpetuated; and that the male heron, at a time when other animals feel moments of bliſs, bleeds at the eyes, and utters cries of anguiſh. This, however, muſt have ariſen from the looſe manner in which natural hiſtory was firſt written, and from the love of the marvellous, which the early writers ſo much indulged. Later obſervations have proved, that, in this tribe, the union between the two ſexes, is accompanied with the ſame emotions, which ariſe from it in other ſpecies of birds.

Though, in times of froſt and ſcarcity, the heron may be long deprived of food †; at other times, when the weather is fine, he wallows in plenty, and gorges himſelf with inſatiable voracity. He is a moſt expert fiſher, and takes his prey either by wading after it, where the water is ſhallow, or by diving from the air, when the object of his purſuit appears near the ſurface of the water.

When plentifully ſupplied, there is no bird of equal voracity with the heron; ſome have been ſhot, out of whoſe ſtomach ſeventeen carps have been taken ‡. This amazing load of food it has the power of digeſting in a ſhort time; after which it again returns to its deſtructive

* Brit. Zool. vol. ii. page 340. 8vo. † Buffon, ubi ſupra.
‡ Vide Willoughby's Ornithology.

occupation with new vigour and appetite. No animal commits ſo great devaſtation in the fiſh-ponds and rivers. From experiments, that have been made by perſons who have tamed them, *Willoughby* aſſerts, that a ſingle heron is capable of deſtroying fifteen thouſand carp in half a year. When the ſmall fiſh are purſued in the deep, by the larger deſtroyers of the ſame claſs, they fly to the ſhallow water for ſhelter, where they meet the heron; a ſmaller, but a more formidable enemy. At the ſide of the ſtream, where he ſits motionleſs with gloomy and ſilent attention, they no ſooner appear, than he darts upon them, bringing with him inevitable deſtruction. When he takes them, he flies with them to the land, where, without allowing them time to expire, he ſwallows them ſtill throbbing with life.

Notwithſtanding his ſize, and powerful beak, the heron is continually haunted with fear. He flies, not only from man, but before the ſmalleſt of the falcon tribes. When conſtantly purſued by the rapacious birds, he tries to eſcape from them by mounting up in the air; and the ſtruggle for the aſcendant, between him and his purſuers, continues till both be loſt in the regions of the clouds *. From theſe circumſtances, herons were formerly, in this country, birds of game, and hawking them was a favourite amuſement of our anceſtors †; and the perſon, who deſtroyed their eggs, was liable to a penalty of twenty ſhillings for each offence.

This ſpecies differs from all the other waders, from its neſtling on tall trees, and commonly in ſociety like rooks. The fleſh of the young herons, was formerly

* Belon. Hiſt. Nat. des Oiſeaux, page 190.

† Pennant's Brit. Zool. vol. ii. page 341.

merly a diſh in high repute; and continues to be ſo ſtill in *France*, where they build large ſheds of wood beſide the ſtream for their accommodation *. The heron is naturally ſo indolent, that it will not build for itſelf, if it can diſpoſſeſs an owl or a rook. Whenever, therefore, it finds materials prepared, it readily employs them. Upon this principle were formed the immenſe heronries of Francis I. at *Fontainbleau*, of which *Belon* ſpeaks with ſo much rapture †.

Theſe birds are far from being plentiful in any country. Their number ſeems inferior to what might be expected from their fecundity. It is probable, that, in the ſevere winters, many of them die from hunger; and that, of thoſe who ſurvive, many are ſo much reduced as to loſe the powers of generation. In theſe ſeaſons of ſcarcity, they devour frogs, and even graſs. Their bodies become light, and lean like a ſkeleton; ſo that, although four feet in length, and five in breadth, they will ſometimes not weigh two pounds.

Herons, when young, are eaſily tamed; but, if taken when old, they refuſe all food in captivity, and die from hunger. Of all the ſpecies of theſe birds, and there ſeems to be a race peculiar to almoſt every quarter of the world, the common grey heron is not only moſt numerous, but moſt widely ſpread. It is to be ſeen in every country in *Europe*; in the cold, as well as in the hot climates. Even in the *Weſt-India* iſlands, it is ſeen aſſociating with the birds that are there indigenous. Theſe long journeys

* Buffon, tome xxii. page 347.

† Entre les choſes notables de l'incomparable dompteur de toutes ſubſtances animées, le grand Roi François fit faire deux batiments á Fontainbleau, qu'on nomme les heronnieres. Belon. Hiſt. Nat. des Oiſ. lib. iv.

neys it is enabled to make, from the largeneſs of its wings compared to the volume of its body. It ſometimes ariſes to an amazing height in the air; at other times, keeps near the ſurface of the earth. From theſe different flights, the ancients formed prognoſtics concerning the weather. Its flight, and reſtleſs humour, were here held preſages of rain: When it ſat ſad and motionleſs upon the bank, or the ſhore, they dreaded froſt: Did it recline its head upon its breaſt, a ſtorm was portended from that quarter, to which its bill was turned. Theſe different preſages are eſtabliſhed by *Pliny*, *Theophraſtus*, and *Virgil*; and ſome of them, perhaps, deſerve to be truſted.

The moſt remarkable of our *European* herons, is the *Egret*; a ſmaller ſpecies, about the ſize of a hen, diſtinguiſhed by a large bunch of ſoft feathers riſing from each of its ſhoulders, and hanging down over its back and ſides. Formerly theſe feathers were worn by the courteous knight-errant as an ornament of his helmet, when he ſallied forth in queſt of adventures: They were deemed a decoration not unworthy of the *Sultan's* turban: And they have, in later times, been taken into the ſervice of the ladies, and, by their undulating motions, form the moſt elegant head-dreſs they can wear.

The Stork *.

THE *ſtork*, a bird of the ſame genus with the heron, and nearly allied to it, both in manners and external form, is familiar to the inhabitants of almoſt every country, except *Britain*. There are many varieties of this bird, but the common *white ſtork*, moſt generally known, is rather larger than a heron, being above four feet in length, and ſix in breadth. The legs and beak are yellow; and the latter is about ſix inches in length. The plumage of the whole body is of a clear white colour, except the *remiges*, or great feathers of the wing, which are black.

In all the countries of *Europe*, the ſtorks are migratory. Before their departure, which is in autumn, they collect together in large flocks; and, all at once, ſoar aloft into the air, without leaving a ſingle bird behind †. Though the ancients had obſerved the migrations of theſe birds, they were ignorant of their rout. Modern travellers, however, have traced them to *Egypt*, a country abounding in frogs, and every nauſeous reptile. In the month of September ‡, *Belon* has witneſſed the plains of that country all white with ſwarms of ſtorks; and Dr. *Shaw*, when ſtationed in the *Levant*, off Mount *Carmel*, obſerved, in the month of April, the ſeaſon when they repair to cooler regions, vaſt flocks of them leaving the banks of the *Nile*, and directing their courſe towards the north of *Aſia* and

* La Cigogne, Buffon. Ardea Alba remigibus nigris. Lin. Faun. Suec.

† Klein. de avib. errat.; and Shaw's travels.

‡ Belon. Obſervations, p. 79.

Europe. So numerous are the flocks which depart from *Egypt* at the beginning, and return to it at the end of Summer, that of the three flights, obſerved by our countryman, each covered a ſpace of half a mile, and took three hours to paſs from his view *.

The return of the ſtork into the northern parts of *Europe*, is an agreeable omen; for theſe birds are the conſtant harbingers of Summer. That is a ſeaſon which they continually enjoy by their migrations into the ſouth; and hence, they are ſaid to give way, twice in the year, to thoſe tender emotions, which that ſeaſon invariably produces among the feathered race. The ſtorks are ſingularly attached to the ſociety of man. They continually frequent the vicinity of large towns, and build upon the houſe-tops, or upon rocks or trees at the brinks of rivers. They commonly lay four eggs, which are hatched in as many weeks. After the young are produced, the parents provide them food with uncommon attention: And, as they deſtroy thoſe noxious animals which infeſt marſhy ſituations, they are, in many countries, protected by man. In *Holland*, they are ſo ſolicitous for the preſervation of theſe uſeful birds, that, in every part of the republic, as if conſcious of the prejudices entertained in their favour, they are ſeen frequenting the towns, and reſting familiarly upon the houſe-tops. In *Egypt*, they are ſtill more ſerviceable, and were formerly held in very high veneration; and, in ſome countries, the *Mahometans* reckon them ſacred, like the *ibis* of the ancient *Egyptians*; in ſo much, that a perſon is accounted profane, if he kill, or even hurt them †.

The

* Shaw's travels, Vol. II. p. 167.

† Ib. 168.

Plate XXXVI

WHITE HERON

COMMON HERON

WHIMBREL

CURLEW

The Numidian Crane *.

THERE are two foreign kinds of the ſame genus with the ſtork, that merit a particular deſcription, the *Numidian* and *Balearic cranes*. The former of theſe birds, has the ſame ſhape, ſize, and proportions as our common crane; nor is the colour of its plumage materially different. Two tufts of white feathers hang down on each ſide of the head, and form a kind of head dreſs for this elegant bird; while a maſs of long, ſoft, and ſilky feathers, of a beautiful black, hang down on the fore parts of the neck and breaſt. It is on account of the neatneſs of its dreſs, that this bird has obtained the name of the *damſel* among the foreign naturaliſts. Its ornaments, however, and even its geſtures, and affected courteſies, give it ſome reſemblance to the ſtarch manners of a ceremonious old maid, rather than to the gay, eaſy, and unſtudied vivacity of a young lady. This ſame damſel inclines forward the head and neck, as if ſhe were attempting ſomething like a faſhionable courtſey: Her manner of walking is a ſtudied compound of affectation, grace, and majeſty. Even when ſhe dances, for this ſhe ſometimes attempts, in her gaiety there is affectation, and an awkward imitation of the human race, of which notice has been taken by every naturaliſt for more than two thouſand years †.

* Virgo, Linnæus. La Demoiſelle de Numidie, Buffon.

† Vide Ariſtot. Hiſt. Anim. lib. viii. cap. 12, et Plinii, lib. x. cap. 22.

Buffon quotes, from *Atheneus*, a fatal inſtance of the imitative faculty of this bird. The ſportſmen, ſays that author, rub their eyes, in view of the crane, with water which they have prepared in a veſſel, and, after having mixed it with glue, they retire. The crane comes, and follows their example; and thus deprives itſelf of the means of eſcape *. To this talent for imitation, the *Numidian crane* owes all its celebrity among the ancients. It ſeems, however, by no means to improve upon even the imperfect copy which it has laid down as its model; for its vanity in diſplaying itſelf is exceſſive. The whole magazine of its charms is diſplayed to every ſpectator; and the pleaſure of exhibiting its graceful figure, prevents it from attending even to its food. When one leaves it, the bird follows, as if to ſolicit another look of admiration.

From the name of *Royal bird*, which ſome have affixed to the *Balearic crane*, one would imagine, that it had aſpired to ſtill higher honours, than the *Numidian* damſel already deſcribed. Its ſtature is not leſs than four feet; its walk majeſtic and ſtately. A large creſt of ſilky feathers, or rather hairs, riſes from the crown of its head. Theſe are thick and buſhy, and ſpread out, at the ſides, like a noſegay. Some long feathers, of a leaden black, hang down along the neck like a mantle, and ſhine with different ſhades of blue. Two large ſpots, of a white colour occupy near one half of each wing, which form a fine contraſt to the dark coloured mantle around the neck. Over each cheek and temple, there is a membranous covering of pure white, which ſurrounds the face, and proceeds down under the chin.

The

* Buffon, tome 22. p. 315.

The *Balearic crane* has limbs of a ſtill more enormous length, than the common kind; from which it alſo differs, in the place of its nativity. This bird is a native of the burning climes of *Africa*, while the other cranes come from the north. The plumage of the latter is dark and dull in its colours; while that of the former is decorated with all the brilliant hues of the intratropical regions, where animation deſtroys gracefulneſs, and the ſmaller ſhapes, and uncommon proportions of birds, encroach upon their beauty *.

This ſpecies of crane, *Buffon* denies to be that known to the ancients by the ſame name, but apparently without much foundation. At *Cape Verd*, and the *Gold Coaſt*, they are ſeen frequenting the large rivers, in queſt of fiſhes. They are not, however, wholly piſcivorous, but ſometimes appear upon the ſhore, where they feed upon graſs and grain. When alarmed, they run with great velocity, availing themſelves, in part, of their wings.

Although this bird has obtained the title of *Royal*, it has none of the endowments requiſite to ſupport that elevated ſtation, being equally deſtitute of arms for attack and for defence. The *Balearic crane* is, in fact, a gentle and peaceable animal. For its ſafety it is indebted either to its ſize, or to the ſwiftneſs of its running, and the velocity of its flight. It is leſs apprehenſive of man than of the reſt of its enemies; for it approaches him with equal confidence and pleaſure. At *Cape Verd*, theſe birds are almoſt domeſtic; they enter the yard, and eat grain with the guinea hen, and the other poultry.

* Buffon, tome xxii, p. 319.

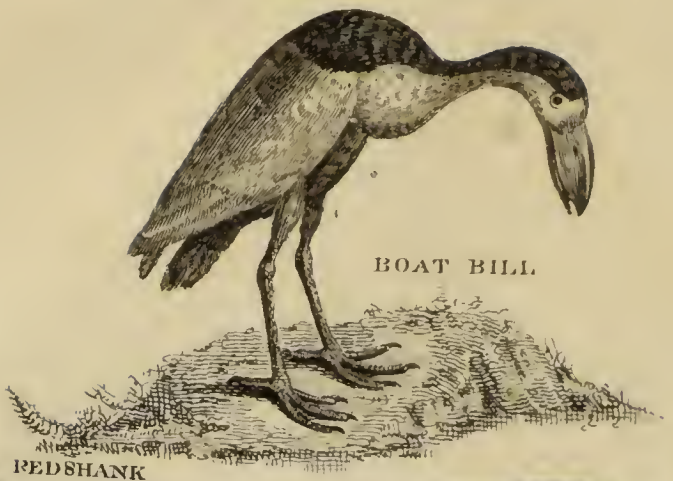
The crane was formerly known in *Britain*, but, from the progreſs of population and agriculture, or ſome other cauſe, it has wholly deſerted the iſland *. The crane reſembles the ſtork almoſt exactly, though it be a little longer in its proportions, and be ſtill more addicted to migration. In harveſt, it iſſues forth from the high northern latitudes into the midland countries of *Europe*; whence, after having ſpent the harveſt months, it travels ſtill farther ſouth, till it find temperate weather †. In the ſpring, it is again ſeen returning, by the ſame ſtages, to the deſerts of the north, where it performs, in ſafety, the duties of incubation, and nutrition of its young.

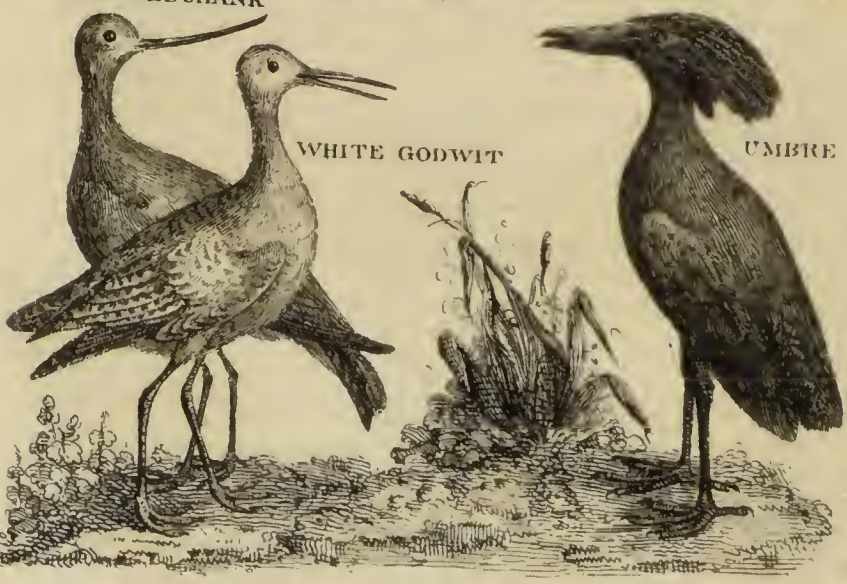
In theſe adventurous flights, the cranes mount very high in the air, whence they are heard by their loud noiſe, even when they are far beyond the reach of the eye. When preparing for their route, they range themſelves in the form of a triangle: The chief, ſtationed at the point, leads on the band, and, in the darkneſs of night, announces his route to the reſt of the army, of which every individual anſwers from his ſtation ‡. The crane feeds upon grain, as well as worms, frogs, and other nutriment peculiar to the aquatic birds. By this circumſtance, as well as by the large bunch of feathers that hang over his tail, he may be diſtinguiſhed from the ſtork.

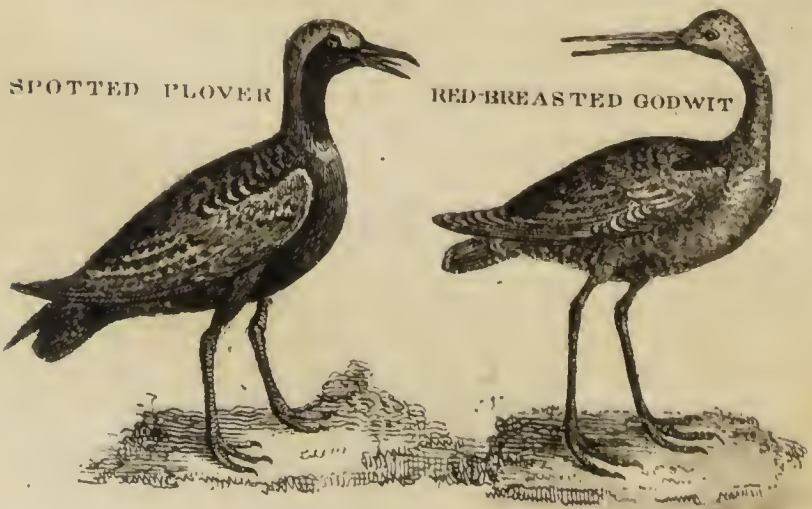
* Sibbald's Scots Illuſt. Vol. xi.

† Buffon, tome xxii. p. 289. ‡ Ib. page 293.

Plate XXXVII







SECTION IV.

GENUS LXIII.—*The Umbre* *.

THIS genus inhabits *Senegal*, and, for the knowledge of it, the naturaliſts are indebted to *Adanſon*. It has been ranked, as a diſtinct tribe, among the waders. Though neareſt to the heron, it reſembles exactly no other bird. Its plumage is of a browniſh grey; and its beak, which is three inches long, is very thick at the baſe. The ridge running along the upper mandible, is ſo much hollowed at the ſides by two deep furrows, that the bill has the appearance of being compoſed of different pieces. The legs are four inches long; and, like part of the thighs, naked. With the manners of this tribe we are wholly unacquainted.

* Scopus, Lin. L'Ombrette, Buffon.

GENUS LXIV.—*The Ibis* *.

THERE were two ſpecies of theſe famous birds known to the ancients; the one *white*, and the other *black* †. The bill is of the thickneſs of that of the ſtork; but bent all along, like that of the curlew. They are ſo nearly related to theſe tribes, that ſome have arranged them with the firſt, while others have claſſed them with the ſecond of theſe families. The ancient naturaliſts ſuppoſed that the ibis inhabited *Egypt*, excluſive of every other country, and that, when removed from it, it pined away with ſorrow. This bird, ſo faithful in the ſervice of its native country, was made the emblem of it. Its figure, which we find wrought on all the ancient *Egyptian* monuments, repreſents *Egypt*; where divine honours were paid to it by the ſuperſtitious inhabitants. The intention of the legiſlator in conſecrating this bird, if it was done from intention, and not from the ignorance of the people, might be, to preſerve, and to multiply animals that deſtroyed the nauſeous reptiles, with which that country abounds ‡. Even after it is ſatiated, the ibis is continually occupied, on the banks of the *Nile*, in deſtroying locuſts, caterpillars, and ſerpents. But however uſeful the ibis may be, ſome have doubted, whether this bird be the ſame with that, which had divine

 honours

* Tantalus, Lin.

† Ariſtotle, lib. x. cap. 30. Hiſt. Anim.

‡ Buffon, tome xxiii. page 10.

honours paid to it by the ancients. Storks, kites, and vultures, are all hoſtile to ſerpents; and the figure, marked in their hieroglyphics, is not ſufficiently diſtinct, to determine exactly, for what ſpecies of the *ſerpentivorous* birds it was intended.

The conſecration of brute animals, which, at firſt ſight, appears ſo monſtrous and degrading to human reaſon, was, however, in the early periods of the *Egyptians*, attended with circumſtances that favoured its eſtabliſhment, and, in ſome meaſure, palliated its abſurdity. The early ſtages of ſociety, in that country, were periods of miſery. The noiſome and deſtructive tribes, with which theſe wretched ſavages were ſurrounded, were too numerous, and too powerful, to be repelled by men, in a rude, ſolitary, and defenceleſs ſtate, who had neither arms, nor any of thoſe arts that are neceſſary, to render human ſtrength of avail againſt the animal creation. There cannot be a ſtronger proof of the wretched imbecillity of man in his firſt ſtage of ſocial union, than his being obliged to humble himſelf, even to adoration, before the brutes. Thoſe numerous tribes, that we afterwards behold his ſlaves, were originally his maſters, or, at leaſt, his formidable rivals for dominion. Fear and hope are the great pillars, upon which Superſtition builds thoſe monuments of weakneſs and ignorance, which are deemed ſo mortifying to pride, and diſgraceful to reaſon. By uniting theſe together, ſhe has made deities of almoſt every animal, either uſeful or deſtructive *.

In *Egypt*, accordingly, the worſhip of animals was early eſtabliſhed, and rigidly adhered to, for a long ſucceſſion of ages. This the ancient monuments fully evince;

* Buffon, tome xxiii. p. 2.

vince ; and ſeem to be a proof of the painful ſtruggles, between man and the noxious animals around him, before his dominion over them was eſtabliſhed. That country, indeed, ſeems peculiarly favourable to the growth of ſerpents, crocodiles, locuſts, and every ſpecies of impure animals. There, among the vaſt maſſes of fat mud, with which that flat and fertile diſtrict is conſtantly covered, by the overflowings of the *Nile*, ſuch animals teem with fecundity, and almoſt cover the ſurface of the earth. The numberleſs myriads of impure animals, which are thus generated under the invigorating influence of a vertical ſun, acquire a ſize, that renders them truly formidable to man ; as well as to the nobler animals, to which they are, at laſt, obliged to yield the empire of that fertile ſoil *.

In this manner was the worſhip of animals eſtabliſhed in *Egypt*, and, probably, in every country in which it has prevailed ; and, in the general veneration that was paid to certain animals by the *Egyptians*, the ibis came in for a ſhare, proportioned to the ſervices it rendered them in deſtroying theſe armies of reptiles.

In the progreſs of knowledge and the arts, reaſon might have checked this extravagance, had not the prieſts and legiſlators encouraged it, to give greater ſanction to the ſe laws, that were made for the preſervation of this uſeful bird. Such is the weakneſs of the human mind, that, in all ages, wiſe legiſlators have found it neceſſary to call in the aids of ſuperſtition to ſtrengthen their laws. In *Egypt* they alleged, that the ibis was a favourite of heaven ; and that, if ever the gods ſhould deign to manifeſt themſelves to man, it would certainly be in the

* Idem ibidem.

the ſhape of that animal: And, that, in the great metamorphoſis of the gods, *Mercury*, the inventor of laws and arts, and the tutelar deity of *Egypt*, had already undergone this transformation *.

Herodotus informs us, that he went to be an eye witneſs of the labours of the ſtork; and that, near *Butus*, on the confines of *Arabia*, where the mountains open to the vaſt plains of *Egypt*, he ſaw the fields covered with an incredible quantity of the bones and fragments of ſerpents, that had been devoured by this bird. Both *Cicero*† and *Pliny* confirm this account ‡.

In return for theſe ſervices, the *Egyptians* ordained, that the killing of the ibis ſhould be held a capital crime; and, being ſkilled in embalming, that gloomy art of perpetuating the images of death, they rewarded, as they imagined, the good offices of the ibis, by preſerving its carcaſe after its deceaſe. In the plain of *Saccara*, there are ſeveral pits, in which the dried ſkeletons of birds are found preſerved, as mummies; and, among others, have been recogniſed thoſe of the ibes. *Buffon* had ſeveral of the veſſels, in which theſe ſkeletons were contained, ſent to him for his inſpection.

* Vide Herodotus.

† Ipſi, qui irridentur, Aegyptii, nullam belluam, niſi ob aliquam utilitatem, quam ex ea caperent, conſecraverunt. Velut ibes, maximam vim ſerpentium conficiunt, cùm ſint aves excelſæ, cruribus rigidis, corneo, procereque roſtro: avertunt peſtem ab Aegypto, cùm volucres angues ex vaſtitate Lybiæ vento Africo i vectas interficiunt, et conſumunt. ex quo fit ut illae, nec morſu vivae noceant, nec odore mortuae. Cic. de Nat. Deor. lib. i. cap. 36. Edit. Gronov.

‡ Plinii Hiſt. Nat. lib. x.

Genus LXV.—*The Curlew* *.

This bird has, like the ibis, a long bill, ſlender, and arched from the baſe. It is conſtructed with large olfactory nerves, for finding inſects, in their vermicular ſtate, among the mud. There are four ſpecies of it deſcribed by *Linnæus*, two of which are natives of *Britain*, the common *curlew* and the *wimbrel*. Theſe birds differ conſiderably in ſize, but hardly in any other circumſtance. The former weighs about thirty, and the latter only twelve ounces †. The largeſt of the curlews are about two feet in length, and three feet three inches in breadth. The head, neck, and coverts of the wings, are of a pale brown; the middle of each feather is black: The breaſt and back, are marked with black ſtrokes. *Pennant* ſays, that, in Summer, they retire to high and mountainous parts of the country, where they pair and breed; but that, in Winter, they are ſeen in flocks upon the ſhores, feeding upon frogs, crabs, and marine inſects ‡.

In *France*, the curlew is a bird of paſſage; and, indeed, in moſt countries of *Europe*, except *Britain*, where it is a wanderer. The genus of curlews, is found almoſt in every country of the world. Thoſe in *America* fly in numerous flocks, from the marſhes to the ſea, eve-

* Scolopax, Lin. Le Courlis, Buffon.

† Pennant's Brit. Zool. vol. ii. ‡ Idem ibidem.

ry morning and evening. They are of a bright red, after their third year *; and, when oppoſed to the rays of the ſun, they ſeem to blaze like flames †. And, being there more gregarious than in *Europe*, they alight together in flocks upon the trees, giving them an igneous appearance, as if the foreſt were on fire.

It is not till after the third moulting, that the curlews acquire this luminous colour. When excluded from the ſhell, they are covered with a dark coloured down, which afterwards becomes aſh-coloured, and altogether white about the time of their leaving the neſt ‡. Although the *American* curlews are gregarious birds, their ſociety is far from being intimate. It ſeems to admit of different ranks like that of the human ſpecies; for the young, cloathed as they are in a leſs gorgeous apparel, and different in colour, are not allowed to aſſociate with the old. Theſe birds build among the rank graſs of the marſhy grounds as early as *January*, and the young, come abroad in the month of *May*; when they are ſometimes ſeen with their mothers, in their peregrinations in queſt of food. They ſubſiſt upon inſects, which they find left by the tide, and ſhell fiſh; and are ſpread almoſt over the whole continent of *America*; but particularly abound at the mouths of the *Maragnon* and *Riojaniero*; and of other great rivers, in the ſouthern parts of that continent.

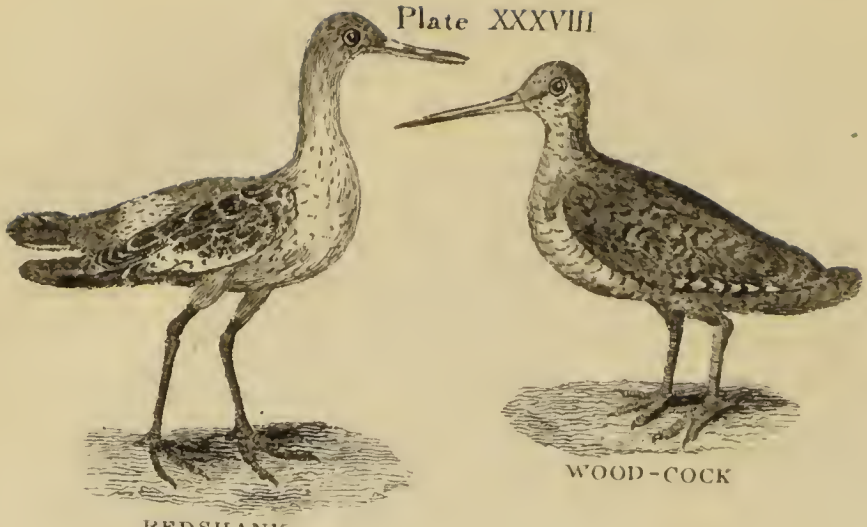
There are ſome birds of this genus entirely white; a peculiarity, which may ariſe either from their having penetrated far into cold latitudes, or from ſome particular fault in their conſtitution. In the *Carolinas*, indeed, there

* Laet. † Hiſt. Gen. des Voyages, tome xiv. p. 304.
‡ Marcgrave and Laet.

ſeems to be a numerous race, which is invariably characterized by the whiteneſs of its plumage, and in which that colour ariſes neither from cold nor debility. The *white curlews* arrive there about the middle of September, the rainy ſeaſon; and, in about ſix weeks, depart thence, and return not till the next year.

The *wimbrel* is a ſmaller ſpecies of curlew, found moſt commonly about the *Britiſh* ſhores. It evidently belongs to the ſame genus; for its colour, ſhape, and manners, are the ſame. And, in *France*, there is no ſeparate word for its name; it being there called the *ſmall curlew*.

Plate XXXVIII

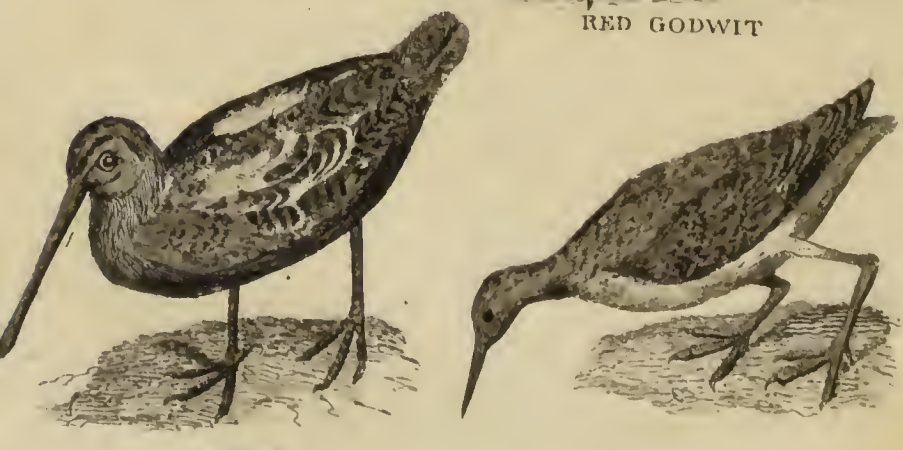


REDSHANK

WOOD-COCK

JACK SNIPE

RED GODWIT



SNIPE

REEVE

Genus LXVI.—*The Snipe* *.

This tribe contains no leſs than ſeven ſpecies, which are found, at certain ſeaſons of the year, in *Britain*; the *wood-cock*, the *ſnipe*, the *jack-ſnipe*, the *common good-wit*, and the *red*; and leſs kinds, the *green-ſhank*, and the *ſpotted red-ſhank* †. Theſe all agree in their preferring marſhy grounds, and in ſucking the mud. The wood-cock, being of all birds of paſſage, held in the greateſt repute by the ſportſman, deſerves a more particular deſcription.

The Woodcock.

In *France* the woodcocks deſcend, at the approach of winter, from the high mountains, where they ſpend the Summer, into the woody and fenny grounds below. From the *Alps* and *Pyrennees*, and other high grounds, which they are obliged to abandon upon the firſt fall of ſnow, they deſcend to increaſe the vaſt ſtock of game that already fills the plains ‡. A more general opinion entertained concerning the Summer reſidence of the woodcocks, is, that they inhabit the mountainous regions of *Norway* and *Sweden*, where their young are bred and reared: And that, from theſe extenſive tracts, they gradually ſpread over the ſouthern parts of *Europe*, according as the Winter advances §. Both theſe accounts may be partly true; for, although ſome

* Scolopax, Lin. La Becaſſine, Buffon.

† Brit Zool. vol. ii. p. 348. ‡ Buffon, tome xxii. p. 474.

§ Willoughby's Ornithology, page 290.

ſome of theſe birds may retire to the *Alps* and *Pyrennees* to neſtle and ſpend the Summer, it is extremely unlikely, that the vaſt quantities, which cover the greater part of *Europe* and *Africa*, could be produced there. Few birds are more widely ſcattered over the old continent, than the woodcocks. They are found, in great plenty, as far ſouth, as *Smyrna* and *Aleppo* *; and, in the ſame ſeaſon in *Barbary*, where the *Africans* call them, from their uncouth ſhapes, the *aſſes of the partridge* †. Towards the eaſt, they are found as far as *Japan*, where they are very common ‡. It has been ſaid, that the woodcock is unknown in *North America*. This, however, is a miſtake; for, all the Summer, they are found in *Canada* and *Cape Breton*, in ſuch numbers, as render it highly probable, that the greater part of thoſe that frequent *Great Britain* and *Ireland*, come from that continent. On the weſt of *Scotland*, they are far more numerous, than on the eaſt; and, on the weſt of *Ireland*, the obſervation is ſtill more juſt. They arrive there in ſuch vaſt quantities, and are ſo much exhauſted by their long flight, that they are ſometimes taken with the hand.

During the Winter, they grow gradually more rare, being obliged, by the ſeverity of the weather, to migrate farther to the ſouth; and, about the beginning of *March*, after they have paired, they generally take their departure, both from *France* and *Britain*. In both countries, a few are known to remain the whole year, in ſome of the colder diſtricts; as in the neighbourhoods of *Tunbridge* and of *Burgundy* §.

Both

* Ruſſel's Hiſt. of Aleppo, p. 64.

† Shaw's Travels, p. 253. ‡ Kempfer's Hiſt. of Japan, vol. i.

§ Vide Buffon and Pennant.

Both in its native country, and during its migrations, the woodcock feeds upon ſmall worms, which it finds with its long bill in ſoft ground and moiſt woods. When theſe birds migrate, they generally fly in flocks, and take the advantage of the night, or cloudy weather, to perform their voyage. They are, in ſome reſpects, night-birds; for they feed moſt buſily in the evenings, and then too, their flights are moſt diſtant and rapid: An obſcure light, probably, beſt ſuits the ſenſibility of their eyes. Their neſts are very careleſsly conſtructed of ſmall twigs mixed with withered graſs; and in them are found four or five eggs, of a browniſh grey marbled with deeper ſpots of the ſame colour *. The young run as ſoon as they leave the ſhell, and fly when they have hardly any other feathers, than thoſe of their wings. In *France*, there are a variety of ways of cocking practiſed, with ſprings, gins, and ſnares, beſides the common manner, with the dog and gun.

When the ſeaſon of ſhooting grouſe and patridge is paſt, the woodcocks are the moſt common game purſued by the *Britiſh* ſportſman; and, in all the weſtern parts of the iſland, they are found in ſuch abundance, that their numbers are not ſenſibly diminiſhed by his depredations. For the cocking, there is a ſpecies of ſpaniels particularly trained, which have obtained their name from their employment. Theſe range the woods and coppices till the bird ariſe, which he commonly does perpendicularly, till he have cleared the tops of the buſhes, when he flies generally in an oblique and zig-zag direction. To ſhoot a woodcock requires all the cool expedition of the moſt experienced ſportſman; and, if the pleaſure we derive from our amuſements

* Buffon, ubi ſupra.

muſements, be proportioned to the dexterity and exertion, which are neceſſary to obtain it, cocking may be reckoned the moſt intereſting of all the amuſements of the field.

The Snipe *.

THE ſnipes partly migrate, and partly breed in *England*, during the Summer, when they generally reſort to the high grounds. Their manner of feeding is nearly the ſame, as that of the woodcock. They continually ſuck the ſoft and ſpongy earth in bogs and ſprings, and, when opened, there is commonly found, in their ſtomachs, ſome earthy ſubſtance, mixed with certain fluids, that, probably, conſiſt of the digeſted worms upon which they have fed. The point of the tongue is ſharp, for the purpoſe of penetrating the worms which they find by gropping in the mud. This ſpecies is ſeldom ſeen upon the ground; for, ſo long as it remains there, it keeps itſelf carefully concealed among the reeds and rank graſs. When ſprung, its flight is rapid, and ſo ſeldom in a ſtraight direction, that the ſhooting of it is a matter of ſtill greater difficulty, than that of the woodcock.

The ſnipe is commonly a very fat bird, but its fat is light, and of a delicate flavour. It is dreſſed in the ſame manner as the woodcock, without taking out the inteſtines †. It is believed, that the ſnipes have diminiſhed greatly in number during the laſt century; a circumſtance, that ſeems to indicate the encroachments which agriculture has made on the marſhy grounds.

* La Becaſſine, Briſſon.

† Belon Hiſt. Nat. des Oiſ.

The Goodwits

ARE all migratory; appearing in this iſland in the month of September, and continuing the whole Winter. They are taken in the fens of *Lincolnſhire* with nets, and afterwards fattened for the *London* market, with bread and milk, hempſeed, or boiled wheat. If expedition be required, to theſe materials is added a little ſugar, which makes them quite plump in the ſpace of a fortnight. When they are ſufficiently fattened, they are ſold, according to their ſize, at from two to five ſhillings *.

* Pennant's Brit. Zool. vol. ii. p. 364.

Section V.

Genus LXVII.—*The Sandpiper* *.

This genus, which *Pennant* has termed *ſandpiper*, has properly no *Engliſh* name †: It comprehends four different kinds, marked as diſtinct genera by *Briſſon*, who enumerates thirty-five ſpecies. The name, *ſandpiper*, properly belongs to one of theſe ſpecies, which frequents the ſhores, and utters a piping or whiſtling note; but, as this note is characteriſtic of the whole tribe, that name is here applied as the generic appellation. Among the aquatic birds, thoſe that are congenerous, all lay the ſame number of eggs ‡. The duck tribes are moſt prolific, producing from eighteen to twenty. The plovers and ſandpipers lay, each, four eggs, while the puffins lay only one.

The Ruff.

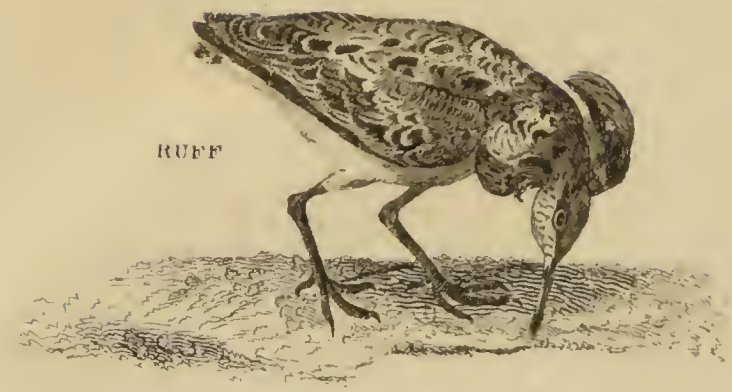
Of the tribe of ſandpipers, there are thirteen ſpecies found in *Britain*; and of theſe, the *ruff* is the moſt remarkable. The colours of this bird are ſo various, that hardly two are found alike; but the long feathers of the neck, reſembling a ruff, from which it derives its name,

* Tringa, Lin. Le Vanneau, Briſſon.

† Pennant's Genera of Birds, p. 46.

‡ Brit. Zool. vol. ii. page 360.

Plate XXXIX



name, ſufficiently characteriſe the ſpecies. Beſides this ruff, there is, on the back of the neck, a tuft of feathers which ſpread out on both ſides, and are always different in colour, from thoſe of the ruff. The females of this ſpecies, which are called *reeves*, are leſs variable in their plumage; they are ſmaller than the males, and are brown, ſpotted in ſome parts with a white, or aſh-colour.

The ruffs, like the preceding genus, are caught in the fens by means of nets. When fattened, they are dreſſed, like the woodcock, with the inteſtines, and their whole contents, which are conſidered by the connoiſſeurs, as the moſt delicate kind of ſeaſoning for theſe birds. As the ruffs are extremely pugnacious, they muſt be kept, during the whole progreſs of their fattening, in a dark apartment; for, the moment the light is admitted, they attack one another with ſuch fury and inveteracy, that the combat does not end, till the greater part be ſlain on the field of battle.

The nets, with which the fowlers take the ruffs, are about forty yards long, and ſeven or eight feet high. They are ſupported at the ſide of the fens by ſticks, placed at an angle of forty-five degrees; and, when the birds are enticed under them by a ſtale, or ſtuffed bird of their own ſpecies, the fowler, who is concealed among the reeds, ſuddenly pulls a ſtring, by which the nets are brought down, and the priſoners ſecured *.

* Vide Brit. Zool. ubi ſupra.

The Piwit.

To the genus of *ſandpipers* belongs that well known bird, the *piwit*, as it is called in *Scotland* and *Germany* *. In the former country, they make their appearance in the meadows and marſhy grounds, in the month of *March*; and, in ſome parts, are ſo numerous, that the fields echo with the plaintive note, *peeweet*, which they continually utter, and which has given riſe, in *France*, to their common name of *dixhuits*. The long top of feathers, which riſes from the hind part of the head, conſiſts of a few narrow feathers of a black and purple hue, reſembling, as is ſuppoſed, the wing of that inſect that flutters on the ſurface of the water, and is devoured by the trout. Hence the top of the piwit, is greatly prized by ſuch as are fond of the amuſement of fiſhing, for with it they dreſs the fineſt flies.

Theſe birds have a ſingular mode of collecting their food, which conſiſts of worms. They obſerve the ſmall ſwell of the ground, which the worm, when it returns below ground in the morning, makes by emptying itſelf. This it gently opens, at the top, with its bill, and then beats upon the ground at the ſide of it. By this ſmall motion the worm is diſcompoſed, and brought to the ſurface, when it is devoured by the bird; which, all the while, was keeping a ſharp and watchful look-out for its appearance †.

On the approach of night, the piwit has ſtill an eaſier method of procuring its food, for, at that ſeaſon, the worms

* For the various ſpecies of this Bird, ſee Briſſon, tome v. p 94.

† Buffon, tome xxiii. page 51.

worms make their appearance above ground. No more is then neceſſary for the bird, than to travel attentively over the graſs, and feel with its feet for the worms that are creeping at the root of it.

On their firſt arrival, theſe birds crowd together in large flocks; but, as ſoon as the pairing ſeaſon commences, their ſociety is ſoon diſſolved by the quarrels of the males. During theſe, the females withdraw from the flock, as if they felt no intereſt in them; but, in fact, with a view to draw after them ſome of the combatants, and to form with them a ſociety of a more tender and intimate nature, for which a ſingle pair is ſufficient.

Genus LXVIII.—*The Plover.* *.

In this genus we include the *oyſter-catcher*, or *ſea-pie*, which *Linnæus* makes a diſtinct tribe, and diſtinguiſhes by the name of *haemalopus*. Theſe birds are ſo very common upon our ſhores, that they ſcarcely need any deſcription. They feed upon limpets, oyſters, and marine inſects; and, when tamed, will live in a garden, where they are ſerviceable in picking up the earth worms. They grow fat in winter, when they aſſemble in large flocks, and are ſhot by ſome for their fleſh, which they reckon agreeable †. The bill is of a beautiful orange colour, and about three inches long. The head, neck, and wings, are of a deep black; part of the quill-feathers are white; and the breaſt, belly, and thighs, are alſo of the ſame colour.

The ſea-pies build no neſt, but depoſit their eggs upon rocks, or dry land, where they leave them to the heat of the ſun for ſeveral hours every day, during the period of incubation; few of the inhabitants of the ſhores, being aſſiduous in the duty of incubation ‡. Theſe birds are ſpread over both the northern and ſouthern hemiſpheres. In the former, they are ſeen on the ſhores of *Iceland*, *Norway*,

* Charadrius, Lin. Le Pluvier, Buffon.

† Buffon, tome xxiii. page 124. ‡ Buffon, ubi ſupra.

Plate XI.

RED SAND-PIPER

GREEN PLOVER

SANDERLING

DOTTEREL

way, and *Denmark*; and in the latter, on thoſe of *New Holland*, *New Zealand*, and in the *Magellanic Straits* *.

The race of plovers are diſtinguiſhed by a ſtrong appetite for ſociety; an appetite, which is not univerſal among the aquatic tribes, but which, where it does prevail, manifeſts itſelf in a much more decided manner, than among the terreſtrial animals. There are no aſſociations of ſuch numbers among quadrupeds, or even land birds, as are ſeen among the geeſe, ducks, and teals, on the ſhore.

The birds of this numerous tribe, are, in general, migratory. They appear in *England* and *France* during the autumnal rains; and, like the former genus, they frequent the wet and marſhy grounds, where they feed upon inſects and worms. They have the ſame habit that we remarked in the piwit, of beating the ground with their bills, to put the worms in motion; and, often ſeizing them before they have fully quitted their retreats, they loſe, by their impatient avidity, the half of their prey. Though it be ſeldom, that any kind of food is found in the inteſtines of plovers, they are remarkably fat birds. It would appear, that the ſubſtance of the worms, after having reached their ſtomachs, is ſoon diſſolved and aſſimilated. Some have, on this account, imagined, that they ſubſiſted upon air †.

The plovers, in general, ſeldom remain above twenty-four hours upon the ſame ſpot. From their vaſt numbers, the ſtock of worms, in any field, is ſoon devoured; and they are then obliged to make trial of ſome different quarter, where theſe animals are plentiful. On the firſt

* Cook's ſecond Voyage round the World, vol. iv.

† Aldrovandi Ornith. page 531.

firſt fall of ſnow, the far greater part of the plovers are obliged to betake themſelves to more temperate climes. The order of their march is ſingular. They range themſelves in long waving lines, that extend a vaſt length: Two or three ranks are drawn up behind the firſt: And thus marſhalled, they wing their way to ſome diſtant country. Thoſe that remain come down to the ſhores, where the ſnow is ſoon diſſolved. There ſome are ſeen perpetually buſy in gathering their food, while others ſtand as centinels, to warn them of the approach of danger. Upon the leaſt alarm, the centinels utter a ſcreaming cry, and the whole flock inſtantly takes wing *. Ten or twelve ſpecies of theſe birds, are enumerated by the *French* naturaliſts.

The birds of this genus, found in *Britain*, are, the *Norfolk plover*, the *green plover*, the *long-legged plover*, the *dottrel*, the *ſea-lark*, and the *ſanderling*.

Of theſe the *dottrel* is, perhaps, the moſt remarkable. It is of a ſmaller ſize, than the reſt of the plovers, being only about eight inches in length. But notwithſtanding this very manageable bulk, it is a ſingularly heavy and ſtupid bird; and, to this, it has, probably, been indebted for its *Engliſh* name.

From the indolent and ſluggiſh habits of the dottrels, there is a method of taking them, that is extremely ſucceſsful. In the county of *Norfolk*, where, at certain ſeaſons of the year, there are vaſt flocks of theſe birds, four or five bird-catchers go out together; and, when they have found the ſpot where they have alighted, they ſpread a long row of nets, at a certain diſtance, and then move away in a circuitous direction, till they get the dottrels betwixt

* Buffon, tome xxiii page 77.

betwixt them and the nets; then they advance ſlowly upon the birds, amuſing them, by beating two ſticks, or by imitating their geſtures. The ſluggiſh birds awaken at length; ſtretch firſt one leg, then a wing; and, by degrees, retreat, till they be cloſe under the nets; when the fatal cord is drawn, which for ever ſecures the infatuated captives *.

The ground colour of the plumage of this bird, is a greyiſh brown, with ſome ſhades of green. Each of the middle feathers of the wing, is bordered with a red fringe. The upper part of the head, is of a browniſh black. The fore parts of the neck, are waved with grey. The breaſt is red: The belly black: And the abdomen, white. The fleſh of the dotterel, which is ſo much in requeſt, is more delicate and ſucculent, than that of any of the plover tribes. It makes two different migrations in the year, in April and Auguſt, when it forſakes the marſhy grounds for the mountains; whither it is attracted by a ſpecies of black fly, of which it is fond. This ſpecies frequents chiefly the northern countries, from *Sweden* and *Lapland*, as far ſouth as *England*; beyond which, it ſeldom penetrates towards the ſouth †. There are ſeveral foreign birds, that are brought under this genus by *Buffon*, that ſeem to have very little affinity with our water-hen. That intereſting and lively writer, is not always attentive to arrangement.

* Willoughby's Ornithology.

† Vide Lin. Syſt. Nat. Gen. lxi. ſpec. 5.

Genus LXIX.—*The Rail* *.

The *French* naturaliſts, *Briſſon* and *Buffon*, as well as *Linnæus*, join the *land* and *water-rail* in the ſame genus. *Pennant* places the latter by itſelf, in a diſtinct genus, and the former among the water-hens.

The *land-rail* † is diſtinguiſhed from the *water-rail*, both by its form and habits, which are very different. It is from ſix to eight ounces in weight; whereas the water-rail is only four. The bill of the former is ſhort and ſtrong; that of the latter, long, ſlender, and incurvated. The one frequents the water and the marſhes; the other the corn-fields. The land-rail migrates before Winter; the water-rail endures the ſevereſt ſeaſons in *Britain* ‡. *Buffon* §, however, aſſerts, that both migrate at certain ſeaſons; and that the water-rails have been caught off the coaſt of *Portugal*, ſo fatigued, that they allowed themſelves to be taken by the ſailors. The land-rail is ſaid to lay from twelve to twenty eggs, of a dull white colour, marked with yellow ſpots. The water-rail, according to *Buffon*, is not ſo prolific. This naturaliſt has four ſpecies of rails, belonging to the old continent, and ſix to *America*.

* Rallus, Lin. Le Râle, Buffon.

† Called in Scotland the corn-crake.

‡ Pennant's Brit. Zool. vol. ii. page 38.

§ Tome xxiii. page 136.

Plate XLI

OYSTER CATCHER

SPUR WINGD
WATER HEN

WATER RAIL

COMMON GALLINULE

Section VI.

Genus LXX.—*The Water-hen, or Galliaule**.

This bird nearly reſembles the rails, in its bill and legs. Like them, it flies with the feet hanging down; and appears rather to run, than ſwim, upon the ſurface of the water; for which purpoſe, it has a ſmall border round the ſides of the toes, which marks a gradation to the aquatic tribes, of the next order, with pinnated feet. The ſize of this bird is fourteen inches in length, and twenty-two in breadth. The female is ſmaller than the male, and leſs brilliant in her colours: She diſplays not that beautiful olive gloſs, which is peculiar to the male.

The water-hen conceals herſelf, during the greater part of the day, among the reeds and oſiers; and, in the evening, is ſeen walking on the water, from one ſide of the river to the other. Her neſt is built on the very edge of the water, and ſometimes floating. It is attached to the growing reeds, and is conſtructed of withered ones and ruſhes woven together†. When ſhe leaves her neſt in the evening, ſhe covers the eggs with dry ruſhes. The young are no ſooner excluded from the ſhell, than they plunge into the water after their mother; and, ſo ſoon are they independent of her care, that ſhe is enabled to rear two, and ſometimes three families in a ſeaſon ‡.

* Fulica, Lin. La Poule d'eau, Buffon.

† Buffon, tome xxiii. page 172. ‡ Willoughby's Ornith.

The water-hen is not properly a migratory bird: It removes only from the more mountainous, to the lower parts of the ſame country. It is found, however, in almoſt every part of the globe. It was found in the iſlands of *Norfolk* and *New Zealand* by Captain *Cook* *, and in an iſland near *Senegal*, by *Adanſon* †. It is found alſo in *England*; and in moſt countries of *Europe*.

The colour of theſe birds, is a dark ferruginous grey; above inclining to a greeniſh brown, and ſhaded with white below. On the fore part of each wing, near the inſection, is a broad ſtroke of white. There are three varieties of the water-hen known in *Europe*, that ſeem to differ only in ſize.

* Vide his ſecond Voyage, vol. i. page 209. and vol. iii. page 341.

† Voyage to Sen. page 169.

Plate XLII

CRAKE GALLINULE

RED PHALAROPE

GREY PHALAROPE

COOT

CHAPTER IX.

ORDER VIII.—*Fin-footed Birds.*

GENUS LXXI.—*The Phalarope* *.

As the birds, which we have hitherto been bringing under our review, although they reſide chiefly on marſhy ground, are yet all incapable of launching into the water, they may be regarded as *terreſtrial*, as well as *aquatic* tribes. The *pinnated* order makes ſtill nearer approaches to that element, upon which it procures its ſubſiſtence. Though incapable of launching out into the vaſt ocean, the individuals that compoſe it, all venture into the lakes and rivers by ſwimming. Some of them, as the coots and grebes, reſide upon the water almoſt conſtantly, being incapable of walking any diſtance on the ſhore. In the power of flight, they are almoſt as defective, as in walking. In conſequence of theſe limited powers, their journeys are commonly ſhort, being only from one lake to another: They are performed, too, moſtly during night, with great effort and difficulty.

Some of the pinnated tribes, are endowed with a capacity of ſeeing in the night, like the owls. At that ſeaſon, they gather their food, and perform the moſt important

ant

* Tringa pedibus lobatis, Lin. Le Phalarope, Buffon.

ant functions of their economy. This quality is not indeed peculiar to them alone; for it is ſhared, in a greater or leſs degree, by almoſt the whole of the water-fowls. Thus accompliſhed, they iſſue forth from the reeds along the lakes and ſhores, when the finny tribes are at reſt, and plunder and devour them without moleſtation. The different genera of theſe birds, are variouſly endowed with aquatic powers: While ſome are confined to rivers and lakes, others venture into the ſea, and engage in a wider range of depredation upon the ſhores.

This order of birds is characterized by the ſcalloped membranes, with which the toes are furniſhed. The water-hen, which concluded the laſt diviſion of birds, diſplays an approach to the *fin-footed* tribes, in that border which ſurrounds the toes. Thus the gradations from one order to another, which Nature has eſtabliſhed, are ſmall and almoſt imperceptible; and we may regard the *phalaropes*, the *coots*, and *grebes*, as an intermediate claſs, deſtined to fill up the ſpace, between the waders, and the water-fowl properly ſo called.

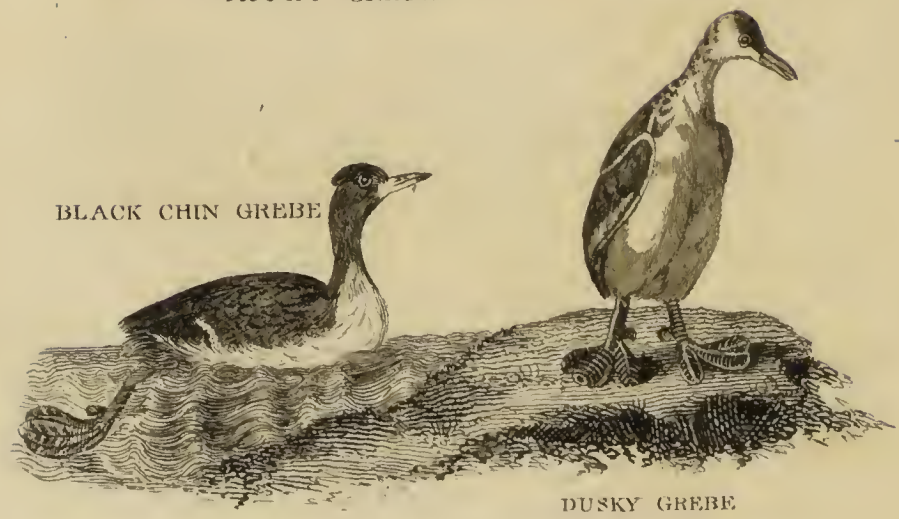
There are three different ſpecies of the *phalarope*, deſcribed by naturaliſts; the *grey*, the *aſh-coloured*, and the *red*. They have obtained, from Mr. *Edwards*, * the name of *ſcallop-toed ſandpipers*, from their reſemblance to that genus of birds, already deſcribed. The aſh-coloured phalarope, from the tip of the beak to that of the tail, is about eight inches in length. Its beak is flattened horizontally, and nearly an inch long; and the feet are furniſhed with a ſcalloped membrane, the lobes of which correſpond to the joints of each toe. The

* Hiſtory of Birds, page 143.

Plate XLIV

TIPPET GREBE

BLACK CHIN GREBE



DUSKY GREBE

EARED GREBE

The lower parts of the body of this ſpecies are white; the upper aſh-coloured. The manners of the phalaropes are wholly unknown. Different ſpecies have been found in *England*, *Lapland* *, and *Hudſon's Bay*.

* Fauna Suecica, No. 179.

Genus LXXII.—*The Coot* *.

This tribe is ſtill more familiarly acquainted with the water, than the laſt; and its feet are furniſhed with the ſame kind of inſtruments. Without having the feet entirely webbed, the coot yields to almoſt none of the water-fowl, in expertneſs in ſwimming. It reſides almoſt continually upon the water; and, if it be found at any time upon land, it is ſo aukward, that it often allows itſelf to be taken with the hand †. Though the coot be a ſhy bird, it is not eaſily ſcared away from the lake or river where it has been bred. When alarmed, theſe birds inſtantly fly to the reeds for ſhelter; and will rather dive into the mud, than take flight. As it is among the reeds that they lurk by day, ſo it is there that they build their neſts, which float upon the waves, but are attached to the brink by a few ruſhes. They lay, in theſe northern climates, five or ſix eggs, of a dirty whitiſh hue. Their young, when produced, being neither ſo ſhy nor ſo apprehenſive of danger as the old, come out, and ſometimes allow themſelves to be approached by the fowler. But the time moſt fatal to theſe birds, is the Winter, when they repair from the fens to the large lakes. There the *French* attack them with a number of ſmall boats; and, when they find themſelves about to be ſurrounded in one corner,

* Fulica atia, Lin. La Foulque, Buſſon.

† Buffon, tome xxiii. page 212.

ner of the lake, they all take flight to repair to another; but, when paſſing over the heads of the fowlers, who all fire at one time, great numbers are deſtroyed. In this manner, will they allow themſelves to be chaced for a whole day, without removing to another lake; and it is not till emboldened by the darkneſs of night, that they venture upon ſuch a journey *.

The coots, in the Winter ſeaſon, often repair to the ſea, where they are ſeen in vaſt numbers, about the mouths of rivers. At *Southampton*, they are brought to the market, ſtripped of their feathers, and ſcalded like pigs †. They are generally about twenty-four ounces in weight.

The coots are birds of ſuch timidity, that they provoke the hoſtilities of every daſtardly animal. The kite robs their neſt, by either eating the eggs, or carrying off the young: And it is owing to ſuch depredations, that the numbers of this fertile race are ſo ſmall; for the coot, in warmer climates, often lays not fewer, than eighteen or twenty eggs: Often too, when her firſt brood is deſtroyed, ſhe lays, a ſecond time, about a dozen more. When the birds are young, they are covered with a down of a dark ſooty colour. That white ſpot on the top of their head, by which they are diſtinguiſhed, often proves a fatal ornament; for it is by it, that they are perceived by the birds of prey, which make a moſt unmerciful attack on the family; and, ſometimes, carry off both old and young together.

The old birds, that have often been deprived of their offſpring by theſe mercileſs invaders, learn to conceal

 their

* Idem ibidem. † Pennant's Brit. Zool. vol. ii. p. 393.

their neſts in ſhelves about the ſhore; and, having become cautious, by their misfortunes, they are enabled, in theſe concealments, to bring up their family. It is the produce of theſe birds alone, that perpetuates the ſpecies; for, among the reſt, the devaſtations committed are ſo great, that ſcarce one in ten eſcapes the rapacity of their deſtroyers.

The forehead of the coot is covered with a thick membrane of a white colour, like a cuſhion, which is the reaſon why it was diſcribed as bald, by the ancients. This membrane, which ſeems to be an elongation of the upper mandible, becomes ſoft and fleſhy towards its inſertion; and, in the ſeaſon of love, it aſſumes, as well as the bill, a reddiſh colour. The whole of the plumage is of a dark leaden colour, more dark and full towards the head and neck. It is furniſhed internally with a very cloſe and fine down, over which there is ſpread a coat of thick ſoft feathers. In ſize and ſhape, the coot nearly reſembles a common hen: Its feet are pinnated; and theſe ſcalloped fringes, ſurrounding the toes, are of the ſame leaden hue, as the plumage of the bird. Theſe coots feed upon inſects, fiſhes, and grain: A circumſtance, not uncommon among ſuch aquatic birds, as Nature has provided with a muſcular ſtomach. They have two particular cries which they utter: The one ſhort and int rrupted; the other a continued noiſe. Both of theſe were reckoned preſages by the ancients.

It is the former of theſe cries, to which *Pliny* * alludes, when he alleges, that the bird is then announcing the approach of a ſtorm: And *Aratus*, the old poet, quoted by *Cicero* †, alludes to the latter, when he mentions the

* Et fulicæ matutino clangore tempeſtatem. Lib. xviii. cap. 35.

† Haud modicos tremulo fundens e gutture cantus. Nat. Deor. lib. 1.

the cry of theſe birds as ominous. Both of theſe cries the coot lays aſide, in its captive ſtate. It then not only becomes mute, but ſeems entirely deaf; for the loudeſt cries, uttered in its ears, do not then affect it. To ſuch ſtupidity are many of theſe animals reduced, when taken from their uſual haunts, and compelled to relinquiſh their natural habits; and the miſery of their ſlavery, ſeems to challenge a greater ſhare of pity, becauſe it deprives them of the power of even complaining. There are two other ſpecies of the coot known to the naturaliſts, whoſe habits and form are ſo nearly ſimilar to thoſe of the bird here deſcribed, that it will not be neceſſary to particularize them. They are both larger in ſize; and the one has a creſt, conſiſting of an enlargement of the fleſhy protuberance, which has been already noticed.

GENUS LXXIII.—*The Grebes* *.

OF this tribe *Briſſon* has eleven ſpecies, which the *Swediſh* naturaliſt claſſes in the genus of *divers* and *guillemots*, under the general name of *colymbi*. The *grebes* are diſtinguiſhed from all other birds, by the following generic characters: A ſtrong, ſlender, and ſharp-pointed bill; a tongue ſlightly cloven at the end; a body depreſſed, and covered with a compact, ſmooth, and gloſſy down; and by toes, furniſhed, on each ſide, with a broad plain membrane †. To the eleven ſpecies deſcribed by *Briſſon*, *Buffon* has added ſeveral varieties of that ſpecies called the *little grebe*. Of theſe kinds there are five found in *Britain*, of which the *great creſted grebe* is the moſt remarkable. Its bill, which is two inches and a quarter in length, is red at the baſe, and black at the point. From the head riſes a large duſky coloured creſt; while the cheeks and neck are ſurrounded with a beautiful pendent ruff, of a bright tawny colour. The back is of a ſooty colour; and the rump, inſtead of a tail, is adorned with a long ſoft down. The breaſt and belly are of a fine ſilver grey, gloſſy as ſatin.

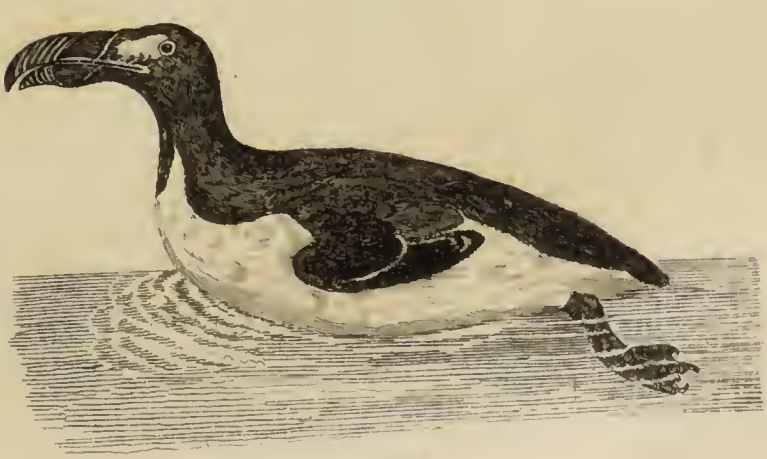
This ſpecies breeds in the *meres* of *Shropſhire* and *Cheſhire* ‡, where it is taken for the valuable down, with which it is covered. The ſkins, when dreſſed with the feathers,

* Colymbi, Lin. Le Grebe, Briſſon.

† Pennant's Genera of Birds, p. 51. ‡ Brit. Zool. vol. ii. p. 394.

Plate XLV

AVOSET



GREAT AUK

feathers, are made into a kind of tippet; and are ſold, each, at fourteen ſhillings, the price uſually paid for thoſe that are brought from *Geneva*. The food of the grebes is fiſh, for which they are continually diving, and which they are ſaid to take, ſometimes at the depth of twenty feet, below the ſurface of the water *. Nothing, in fact, can exceed the agility with which this bird ſwims, dives, and cuts the waves, but its helpleſs and impotent condition on ſhore. As its legs are placed far back in the abdomen, it cannot ſtand but in a perfectly erect poſture, in which it can neither run nor take flight. When, therefore, the unfortunate bird happens to be driven by a ſtorm upon the ſhore, it remains ſtruggling with its feet and wings, and making vain efforts to fly or run back to the water, till it be taken by the firſt perſon who comes to the place.

The grebes frequent both the freſh water lakes, and the ſea, where they build their neſts floating and looſe among the flags. As this edifice is conſtructed only of a few ſticks, the water penetrates it, and overtops the eggs, which the mother ſtill hatches with ſucceſs in this wet condition. The neſt of the grebe, being altogether unconnected with the reeds among which it floats, it ſometimes happens that it is blown from among them, into the open lake. In this ſituation, the owner, like a ſkilful pilot, it is ſaid, ſteers the neſt into a ſafe harbour, by paſſing her feet through it. In this hiſtory of the grebe, we perceive a near approach to that romantic embelliſhment, with which the ancients adorned that of the *halcyon* †; for it is added, that the female is ſo affectionate

* Schwenkfield apud Buffon.

† The "fluctivaga domus" is aſſigned her by Statius Theb. Lib. ix. l. 360.

fectionate a mother, that ſhe carries her infant brood upon her back, or under her wings, when they become tired by following her. Theſe circumſtances, eſpecially that of the navigation of the neſt, are contradicted, with much appearance of reaſon, by *Buffon*, who aſſerts, that the neſts of theſe birds are always faſtened to the flags; but adds, what is hardly more credible, that, on the coaſt of *England*, oppoſite to *Piccardy*, a ſpecies of grebes build in holes in the rocks, from which the young tumble themſelves down into the ſea *. The ordinary food of theſe birds is fiſh; but to this they ſometimes add ſea-weeds, and even mud, as appears from their inteſtines.

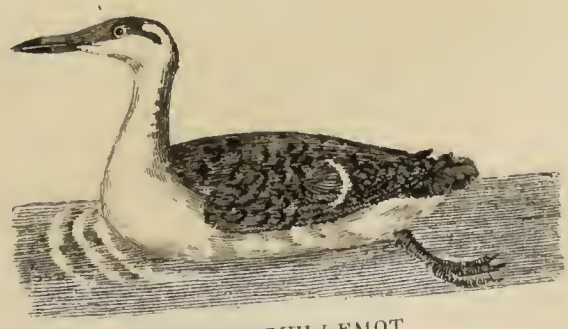
* Buffon, tome xxiii. p. 230.

Plate XLVI

RAZOR BILL

LITTLE AUK

SPOTTED GUILLEMOT



LESSER GUILLEMOT

CHAPTER X.

SECTION I.

ORDER IX.—*Webfooted Birds.*

WE are now come to a race of birds purely *aquatic*. Hitherto we have been examining thoſe gradations through which Nature paſſes, in her progreſs from the land to the waterfowl. Birds of the palmated order, by the peculiar conformation of the feet, clearly demonſtrate the deſign of Nature to accommodate them to the waters. Among the waders, we obſerved ſome that delighted in marſhy ground; others we ſaw venturing to fiſh in the ſhallow water; and a third kind we contemplated making bolder attempts, and procuring their food at ſome diſtance from the ſhore. The palmated tribes, however, alone launch boldly into the open ocean, and feel themſelves almoſt altogether independent of land. And there is no part of that vaſt element, into which they have not ſometimes been ſeen to penetrate.

GENUS LXXIV.—*The Avoſet* *.

THESE are birds of ſuch a ſingular ſhape, that they excite a deſire to be acquainted with their hiſtory; a deſire

* Recurviroſtra, Lin. L'Avocette, Buffon.

ſire, however, which naturaliſts have never yet been able to gratify. While the webfooted birds, have, in general, very ſhort legs; thoſe of the avoſet are ſo diſproportionably long, that they ſufficiently diſtinguiſh it from every ſpecies of this order. It is characterized by a ſtill more ſtriking ſingularity, and that is, a long ſlender beak bending upwards, in a direction the reverſe of that of every other bird. This curious inſtrument is thin, compreſſed, and flexible; and, while apparently ill fitted to collect the food of the animal, it is certainly uſeleſs for its defence. It ſeems to be one of thoſe ſports or extravagancies of Nature, in which ſhe ſometimes indulges herſelf, as if to try how far ſhe can go without deſtroying her own work.

It is even difficult to conceive the uſe of this ſingular inſtrument, with which the bird can neither peck nor ſeize any ſubſtance; or how the animal feeds by its means. The greater part of its ſuſtenance, is, probably, collected from the foam upon the top of the waves, which contains drowned inſects and the ſpawn of fiſhes: To theſe it may, perhaps, add worms ſucked from the mud. Its viſcera contain a fat glutinous ſubſtance of an orange colour, which ſeems to be compoſed of ſuch ſubſtances when partly digeſted.

Theſe birds are about the ſize of a plover, and raiſed upon legs from ſeven to eight inches long. The neck and head are rounded: The whole plumage is of a ſnowy white, on all the foreparts of the body, with a mixture of black upon the back: The beak and legs are of a dark blue.

This ſpecies ſeems ſtill to conſtitute an intermediate link in that chain, which connects the land and waterfowls. Its long legs connect it with the former; while

its webbed feet give it a claim to be ranked among the latter birds. Of theſe long legs the avoſet avails itſelf; and wades much in ſhallow water.

This genus contains one ſpecies, which has never multiplied, or even varied greatly in any country. It is an inhabitant of *Europe*, and reſides generally upon the ſhores, and in the mouths of rivers. The avoſet is, in this country, a bird of paſſage; and is ſeen, on our coaſts, only for a ſhort time, in the months of April and November. It departs often the very day after it arrives; and hence it is very ſeldom, that the ſportſman is able to kill it. The avoſets are ſeen moſt frequently on the eaſt and ſouth ſhores of *Britain*, where they reſide, for a month or two, till froſt begin *, and afterwards diſappear. It is ſaid that they neſtle in ſome parts of *France* †.

* Ray Synopſis Avium, page 117. Willoughby, page 240

† Buffon, tome xxiii. page 470.

GENUS LXXV.—*The Flamingo* *.

AMONG the immenſe tribes of waterfowl with palmated feet, there are three genera diſtinguiſhed by the immoderate length of their legs, and their reſemblance to the waders in the long and ſlender conformation of their bodies. Theſe are, the *avoſet* above deſcribed, the *corrira*, and the *flamingo*. Of the *corrira* we know little but the name: There is but one ſpecies; and that, probably, has never been obſerved ſince the days of *Aldrovandus*; who is the only naturaliſt who ſeems to have ſeen it.

The *flamingo*, although the moſt remarkable of all the aquatic tribes for its ſize, beauty, and the peculiar delicacy of its fleſh, is now almoſt as rare, at leaſt in *Europe*, as the corrira. Theſe extraordinary qualities of the flamingo, were ſuch ſtrong temptations to deſtroy it, that it has long deſerted the *European* ſhores, and taken refuge in the more thinly peopled regions of the New Continent.

The body of the flamingo is ſmaller, than that of the ſtork; but ſuch is the length of the neck and legs, that the bird, when it ſtands erect, is ſix feet and an half high. The head is ſmall and round, furniſhed with a bill ſeven inches long, partly red, partly black, and crooked like a ow. The legs and thighs, though not thicker, than a man's finger, are above two feet long; and the neck, equally

* Phœnicopterus, Lin. Le Flammant, Buffon.

qually ſlender, is three feet long. From this extraordinary ſhape, the bird is able to wade into the water, to the depth where its food is found; but, though the feet be webbed, it ſeldom uſes them for ſwimming: So that this bird, the corrira, and the avoſet, may be conſidered as forming a diſtinct claſs, between the waders and palmated waterfowl. They are allied to the former, by the length of their neck and legs; and to the latter, by the webs by which their toes are connected.

The plumage of the flamingo is not leſs remarkable, than its figure, being of a bright flame-coloured red. Like all other birds of extraordinary brilliancy of colour, it is an inhabitant of the tropical and warm climates. It is found from the *Mediterranean*, in every diſtrict of *Africa*, to the *Cape of Good Hope*. In *Congo*, *Angola*, and *Biſſao*, where the negroes hold them in ſuperſtitious veneration, the flamingoes have multiplied, to that degree, that they are ſeen, in thouſands, around their villages. Among that ſimple people, their ſociety is conſidered as the gift of heaven, and as a protection againſt many of the evils of life. They will, therefore, allow none of them to be killed; and conceive it no hardſhip to be continually ſtunned with their cries, which are heard, for near a mile, all round their habitations *.

Theſe birds, though they never venture far into the temperate or colder climates, have found means to penetrate into *South America* and the *Weſt Indies* †, where they aſſume the very ſame appearance, as thoſe in *Europe*; there being no different ſpecies, or even variety of this ſingular

* Hiſt. Gen. des Voyages, tome ii. p. 590.

† Sir Hanſe Sloan, and De Lact.

genus. *Labat* gives a very curious account of the manner, in which they build their neſts *; which, he ſays, conſiſt of a heap of fat earth, or of clay, collected in a marſh, and riſing about twenty inches above the water, which always covers the baſe. Upon the top of this pyramid, a little hollowed out for the reception of the eggs, the female ſits and hatches; perched as it were, upon her rump, with her legs hanging down, like a man ſitting upon a ſtool †. *Dampier* alſo deſcribes the ridiculous poſture of theſe birds while hatching; which, he juſtly obſerves, ariſes from the enormous length of their limbs, which renders it impoſſible to fold them under them, like thoſe of other birds.

The young, which are never above three in number, do not fly, till they be nearly at their full growth; but run very ſwiftly a few days after their excluſion from the ſhell ‡. At firſt their plumage is of a clear grey, which, for two years, brightens gradually into its vivid igneous hue, and then acquires its full luſtre §. The food of the flamingoes is ſhell-fiſh, aquatic inſects, and the ſpawn of fiſh. While feeding, they keep together in large flocks, drawn up artificially in lines, which, at a diſtance, exactly reſemble an army in order of battle ‖; and, like all gregarious birds, they employ a few to act as centinels, for the ſecurity of the reſt while feeding. On the approach of danger, theſe ſet up a loud ſound, like that of a trumpet, which is heard at a great diſtance, and is the ſignal upon which the reſt take wing. So ſhy are theſe birds, that, when ſurpriſed by the ſudden appearance of an

* Tome xi. p. 425.
† Voyages, vol. i. p. 93
‡ Phil. Tranſ. No. 350.
§ Cateſby's Nat. Hiſt. of Carol. vol. i.
‖ General Hiſt. of Voyages.

an enemy, they remain motionleſs; and continue ſo much overwhelmed with aſtoniſhment, that almoſt all the individuals of a flock may be knocked down, one after another †.

Cateſby, *Dampier*, *Dutetre*, and other travellers, ſpeak variouſly concerning the fleſh of the flamingo, as an article of diet; a circumſtance, not to be wondered at, ſince food appears either good or bad, in a great meaſure according to the appetite of him who uſes it. It was a diſh in high repute among the luxurious *Romans*; and *Apicius*, ſo famous in the annals of gluttony, is recorded by *Pliny* as the perſon, who diſcovered the exquiſite reliſh of the flamingo's tongue, and a new method of ſeaſoning it ‡. Some of the modern travellers, either from an affected deference to the opinion of the ancients, or from experience, have ſpoken alſo in high terms of the exquiſite flavour of the flamingo's tongue. It muſt, ſurely, prove a coſtly diſh; and the man, who would gratify himſelf by frequently eating it, would prove a more extenſive plunderer, than the moſt ravenous of the rapacious birds.

In ſome parts the flamingoes are tamed, principally for the ſake of their ſkins, which are covered with a very fine down, and applicable to all the purpoſes for which thoſe of the ſwans are employed. When taken young, they grow ſo familiar, that, in a few days, they will eat from the hand. Even the old birds lay aſide their wild habits, and ſubmit to captivity; living in perfect harmony with the poultry, along with which they feed. But, however eaſily theſe birds ſubmit to domeſtication, they are never found to thrive in that ſtate: None of thoſe, that have been made captives by the natives of *America*, have been found to breed under their care. The young are extremely tender

† Hiſt. Nat. et Mer. des Antilles, page 151. ‡ Lib. x. cap. 48.

der and delicate; and even the old birds are ſo ſenſible to cold, that they approach the fire conſtantly in their native climates, where they have been brought into a domeſtic ſtate.

Snares and lures are laid, in order to catch thoſe that are running wild; and, ſometimes, they make uſe of the tame ones for that purpoſe. The method employed is, to drive the latter into the parts frequented by the wild birds, and to lay meat for them there. No ſooner do the wild flammingoes ſee the others devouring the meat, than they come to procure a part of it. A battle then enſues between the parties, when the birdcatchers, who lie concealed hard by, ſpring up, and take them *.

* Buffon, tome xxiii. page 496. Note (a).

Section II.

Genus LXXVI.—*The Albatroſs* *.

The *Albatroſs* is the largeſt of all the aquatic birds; and, from the ſtrength of his body, as well as the formidable beak with which he is armed, he is, undoubtedly, one of the moſt deſtructive plunderers that ravage upon the ſeas. His body is larger, than that of either the pelican or the ſwan; and his wings, when extended, are ten feet from tip to tip. The bill is ſix inches long: It reſembles that of the booby and pelican, and is compoſed of ſeveral layers, or ſtrata, heaped above each other. It is of a yellowiſh colour, remarkably thick and ſtrong, and terminates in a crooked point. The plumage is of a bright brown upon the head; more faint and dirty upon the back, where it is mixed with black ſpots: And the toes, which are webbed, are of a fleſhy colour †.

This bird is an inhabitant of the South Sea, and is diſperſed over its whole extent, from the *Cape of Good Hope* to *Cape Horn*, and *New Holland*. In theſe retired quarters of the globe, where he is ſeldom diſturbed by the intruſions of man, did the *Albatroſs* remain as reſidenter, long unknown to the lords of the creation, before they had learnt the extent of their dominions. He was found in all the high ſouthern latitudes, which were traverſed

* Dio medea exulans, Lin. L'Albatroſs, Buffon.

† Edwards, vol. ii. p. 88.

traverſed by Captain *Cook* in his ſecond voyage *; and was often caught, far from land, by the ſailors, who baited for him a hook, with a piece of ſheep-ſkin. The *Albatroſs* is not ſo fierce a bird, as the firſt travellers deſcribed him. He preys only upon ſpawn and mucilaginous fiſhes, without moleſting the fowls, or the largeſt of the finned tribes. He is even ſeen to fly, and act upon the defenſive with the gull. In the ſouthern latitudes, the ocean preſents a very different appearance, from what it does in the northern. There the flying fiſh is, every moment, riſing from the ſea, to eſcape the purſuit of the dolphin. No ſooner, however, does it riſe above the ſurface of the water, than the gull dives upon it with an aim ſtill more fatal, than that from which it has juſt eſcaped! Nor has the gull had time to profit by his good fortune, till he is attacked by ſome more powerful deſtroyer; and is obliged to yield his new-gotten ſpoils to ſuperior force. Thus, inſtead of that dreary waſte, which our ſeas preſent to the ſpectator's eye, thoſe of the ſouthern hemiſphere teem with birds and fiſhes, and ſeem all alive with multitudes of the purſuers and the purſued.

In the ſouth ſeas, Captain *Cook* diſcovered albatroſſes of ſeveral different colours, which appear rather to be varieties, than diſtinct ſpecies †; and, no where, did he meet with them in greater numbers, than among thoſe high mountains of ice, which he encountered in the ſixty-ſeventh degree of ſouth latitude ‡. Theſe birds, except in the breeding ſeaſon, are often found at an immenſe diſtance from land; and muſt, therefore, be capable not only of taking reſt, but of ſleeping upon the water. The ſtory told by *Wiqueford*, and repeated by *Goldſmith* §, of

* Vol. i. page 284.
† Second Voyage, vol. iv. page 9.
‡ Idem, vol. ii. p. 148.
§ Vol. vi. p. 62.

of their rising high into the clouds, when pressed by sleep; their putting their head under one wing, and beating the air with the other; and of their enjoying repose, while thus poised in the atmosphere; carries not with it the smallest vestige of probability. In the islands of the south, the albatrosses and the penguin build their nests in the neighbourhood of one another, on the flat shores. While Captain *Hunt* commanded at the *Falkland Islands*, he observed this union between these birds. There their nests covered the surface of the earth in thousands: In the middle stood that of the albatros, raised upon heath and small sticks about two feet; round it generally stood the settlements of seven or eight penguins, in small holes in the ground. These regular cantonments, which formerly occupied the whole island, are, since its possession by man, almost wholly destroyed.

Genus LXXVII.—*The Auk* *.

Under this genus are comprehended, the *great auk*, the *auk*, the *black-billed auk*, the *puffin*, and the *little auk* †. The Winter reſidence of this tribe is unknown; they, probably, ſpend that inclement ſeaſon in ſome more temperate climate, far from land; and form part of that amazing group of birds, which navigators obſerve in ſome parts of the ocean, and which retire from it during the breeding ſeaſon. From this, however, the great *auk* forms an exception. That bird never removes from land, ſo far as to be beyond ſoundings; and from that circumſtance, its appearance is conſidered by ſailors as a certain indication of their approach to land. This bird, which is three feet from the bill to the toes, is an inhabitant of *St. Kilda*; appearing there in May, and retiring in the middle of June. It does not viſit that coaſt annually, but is ſometimes away for ſeveral years ‡. When it builds there, the neſt is conſtructed cloſe by the ſea-mark; for, as the great auk is almoſt equally incapable of flying and walking, it cannot remove far from the edge of the water. It lays but one egg, about ſix inches long, and marked, about the thick end, with broad ruginous ſpots.

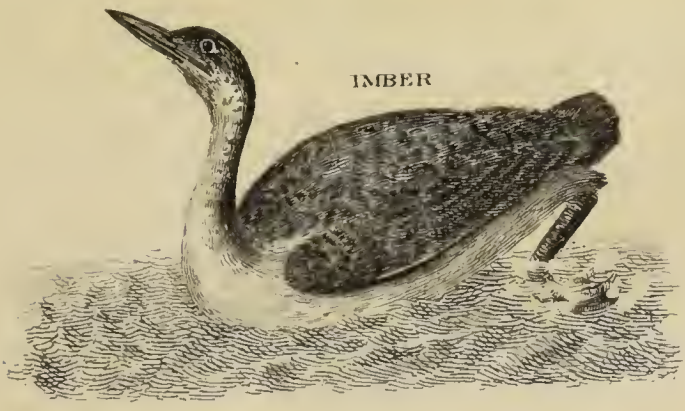
The *great auk* is black over the whole upper part of the body, and white below; reſembling the colour of the

* Alix, Lin. Le Pingoin, Briſſon.

† Brit. Zool. Vol. ii. p. 401.

‡ M'Caulay's Hiſt. of St. Kilda, p. 156.

Plate XLVII



the common auk that frequents our coaſt, except the two white ſpots on each ſide of the head, which, in the laſt, are wanting. The common auks appear, on the *Britiſh* coaſts, about the beginning of February; but do not ſettle in their breeding places till May. Then, in company with the guillemots, they take poſſeſſion of the high rocks that hang over the ſea; and ſit cloſe together in rows, one above another. Thoſe ſtupendous rocks on the ſouth of the *Iſle of Wight*, called the *Needles*, are thus covered every Spring with this groteſque aſſembly. The auks are very heavy flyers; and, while they lay upon theſe precipices, to render their neſts inacceſſible to mankind, they often make them almoſt equally ſo to themſelves. It is not till after many efforts, that the female can riſe to her neſt; and, when ſhe has depoſited her egg, it is ſaid ſhe never leaves it, till it be hatched; being ſupplied, during the time of incubation, by the male *.

When their egg is deſtroyed, both the auks and guillemots will lay a ſecond, and ſometimes a third, which are all uniformly depoſited upon the bare rock; and ſo wonderfully fixed and balanced upon its ſmooth ſurface, that, when removed from their place, the human hand is in vain employed to replace them in their former equilibrium †. Amidſt thouſands of eggs thus lying in the vicinity of each other, each bird, guided by an unerring inſtinct, eaſily diſtinguiſhes its own.

The *guillemot*, ſays *Buffon*, preſents to us the traits, by which Nature prepares to terminate that long ſeries of varied forms, which ſhe exhibits in the feathered

* Goldſmith, Vol. vi. † Brit. Zool. Vol. ii. page 404.

creation. The wings of this bird are ſo ſhort and narrow, that it is with great difficulty it can riſe from the water, and ſupport a ſhort flight along its ſurface. When it attempts to riſe to its neſt, which is ſituated in the rocks, it flutters, or rather jumps from cliff to cliff, till it reach it, always taking a reſt after every exertion. This tribe frequents but little the temperate or ſouthern parts of *Europe*: The inactivity which characterizes it, would prove fatal, were it an inhabitant of any coaſt fully peopled with the human ſpecies. The ſhores of *Norway*, *Iceland*, and of the *Faro* iſlands, are the dreary regions, to which it is confined, in order to ſecure it from the invaſion of enemies from which it has not ability to fly. The ſame is the caſe with the penguins in thoſe immenſe tracts of the ſouthern ocean, viſited by Captain *Cook*. They are the moſt remote inhabitants of the two extremities of the globe, where they are deſtined to ſtruggle againſt the cold, and the progreſs of the ice, which threatens to annihilate every animated being.

The guillemots migrate farther ſouthward, during the Winter; at which ſeaſon they are ſeen along the *Britiſh* ſhores. A few of them even neſtle there upon the craggy cliffs of the rocks, in thoſe ſmall iſlands that are near the ſhore. They always chooſe the higheſt cliffs of the precipice, placing their neſt in the inverſe ratio of their ability to approach it. Their eggs are of a bluiſh colour, more or leſs motled with black; and of a ſize that ſeems conſiderably larger, than what could be expected from birds of their bulk.

The body of the guillemot is round and heavy, about the ſize of the ſpoon-billed duck, and armed with a long ſharp bill of a black colour, and covered, part of its length,

length, with ſmall feathers. The neck, the back, and wings, are of a ſooty black, while all the plumage on the foreparts of the body, is as white as ſnow. From the poſition of the legs of theſe birds, which are ſitnated far back in the abdomen, they are as expert in ſwimming and diving, as they are heavy and aukward in their motions, while on land and in the air. It is by diving, accordingly, that they endeavour to eſcape, when wounded or ſhot at. They are neither ſhy nor ſuſpicious, and eaſily fall a prey to the artifices of thoſe, who wiſh to take them. Of the gnillemot there is one other ſpecies, much ſmaller in ſize, and frequently found on the ſhores of *Greenland*; from which, it has ſometimes obtained the name of the *Greenland* dove.

The *puffin* is the moſt remarkable bird of this genus, on account of its enormous broad bill. This inſtrument, which is about an inch and an half long, and nearly of the ſame breadth, is compreſſed at the ſides; is of a triangular ſhape; and riſes into a ridge above, that terminates in a ſharp point. The bill is of two colours; a bluiſh grey near the head, and red towards the point: On the blue part, there is one tranſverſe furrow; and, on the red part, three.

The puffins, from the ſhortneſs of their wings, are only capable of low heavy flights upon the ſurface of the water, in which they ſeem to be aided by their feet. The plumage with which their bodies are covered, more nearly reſembles down than feathers. Great numbers of theſe birds are found upon two ſmall iſlands, the one near *Angleſey*, and the other near the *Iſle* of *Man*. In theſe places numbers of rabbits breed; and the puffins, unwilling to be at the trouble of ſcooping out a hole,

where

where there are many already made, diſpoſſeſs the rabbits, and, probably, devour their young *. They feed, however, principally upon fiſh, which they catch by diving. During the breeding ſeaſon, after the young are excluded, they are employed, during the day, in gathering food; and, in the evening, they return with whatever they have found, already half digeſted in their ſtomachs, whence it is ejected into the young, forming a kind of unctuous ſubſtance, highly neutritive.

The fleſh of the young was formerly allowed by the church in lent, inſtead of fiſh. It is exceſſively fat and rancid; but, when preſerved with ſpices, it is admired by ſome, who are fond of high eating. The puffins are conſidered as the property of thoſe perſons, to whom the iſlets, upon which they neſtle, belong. Formerly they were taken out by ferrets: Now they are drawn from their holes with a ſtick hooked at the end; and, to aſcertain the number taken, one foot of each is cut off †. If the puffin have been diſturbed in laying, and the maturity of her offspring by that means protracted, the young bird is left to ſhift for itſelf, or rather to periſh ‡; for the whole, that are capable, take their leave of their Summer reſidence in Auguſt. If, in their migration, which is performed by ſwimming, they be attacked by tempeſtuous weather, and be unable to feed, many of them periſh; and their dead carcaſes are ſeen waſhed out upon the ſhore. It is probable, that they ſpend the Winter months in ſome warmer latitudes; but it muſt be obſerved, that few of the auk or penguin kinds, reſort to the

* Goldſmith.

† Brit. Zool. page 407.

‡ Willoughby, p. 246.

the tropical climates. That immenſe quantity of oil, with which their bodies are furniſhed, is an excellent preſervative againſt the cold. But in thoſe warmer regions, that border upon the line, it is apt to turn rancid, from the exceſs of heat, and to deſtroy the animal by creating putrid diſorders.

Section III.

Genus LXXVIII.—*The Diver.**.

There are ſix ſpecies of theſe birds deſcribed by naturaliſts, three of which are found on the *Britiſh* ſhores; the *great northern diver*, the *grey ſpeckled diver*, and the *red-throated diver*. The generic characters of this tribe are, a ſtrong, ſtrait, and pointed bill; legs very thin and flat; and thighs hid in the abdomen. From this ſtructure of their limbs, the divers are marked by an upright and perpendicular poſture, when walking; and, like the grebes, have great difficulty in preſerving their balance. No birds, however, are more prompt or alert in their movements, when upon water. Upon that element their motions are ſaid to be ſo inſtantaneous, that they can eſcape from the ſhot of a fowling-piece, after having obſerved the flaſh from the touch-hole †.

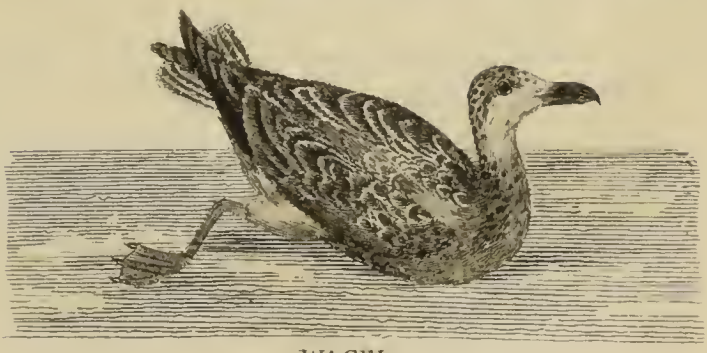
The *great northern diver*, the moſt remarkable of this genus, occaſionally inhabits the northern parts of *Scotland*; but it is not aſcertained, whether it breeds there, as it does in *Norway*. It is about the ſize of a gooſe, being nearly three feet in length, and four in breadth. The head and neck are black, with reflections of green and violet, and the

* Colymbus, Lin. Le Plongeor, Buffon.

† Buffon, tome xxiii. p. 251.

Plate XLVIII

HERRING GULL



WAGEL

ARCTIC GULLS

the bird is diſtinguiſhable by a white collar round the neck, ſtriped longitudinally with black lines. The upper parts of the body are black, marked with white ſpots; while the under ſide is perfectly white. This bird but rarely appears upon our ſhores. We are, therefore, but little acquainted with its manners: And hence many fabulous accounts of them have been propagated and believed. It has been gravely aſſerted, that the northern diver builds its neſt under ground, and raiſes its young there; but, as fiction is not always conſiſtent with itſelf, it has unfortunately been added, as a part of the hiſtory of this bird, that it carries its eggs always under its wings, and hatches them in that manner. The former of theſe romances we find in *Sibbald*: How the latter found a place in the Philoſophical Tranſactions *, we are unable to determine. No naturaliſt has ſeen the neſt of this diver: When that happens, the nidification of this bird will ceaſe to be marvellous; for it is only concerning this unknown circumſtance, that wonders are recorded.

The *greater diver* is but little inferior, in ſize, to the preceding ſpecies, but is much better known, being frequently taken upon our ſhores. By its unwieldy corpulence when on land, and its impotent efforts in walking, this ſpecies well illuſtrates the generic character, that has been given of this family.

After ſtruggling long with its legs and wings, this bird finds itſelf incapable of taking its flight from the dry ground. It is from the ſurface of the water, that it is enabled to get upon the wing. There it appears active, and maſter of itſelf; for, on the approach of danger, it

* No. 473, page 61.

inſtantaneouſly dives below the water, and remains immerſed for a conſiderable time; after which, it makes its appearance, at the diſtance, perhaps, of an hundred yards, from the place, from which it ſet out on this ſubaqueous journey. It is ſupplied with air, while under water, by taking down a conſiderable quantity in one of the inteſtines, which dilates for that purpoſe.

It is in the water, that this bird is deſtined to perform every function of its economy. There it finds its ſubſiſtence; there it ſeeks for ſhelter from its enemies; and finds an aſylum in the hour of danger. But man, more formidable by his addreſs, than by his ſtrength, has contrived to entangle him in his ſnares, even while at the bottom of this retreat. A net, or a line baited with a ſmall fiſh, are the lures by which this bird is taken, while he imagines he is devouring his prey. The water is the birth-place of the diver, for it is there, among the reeds, that the old birds build their neſts, and rear their young, which iſſue forth upon the water, ſoon after they leave the ſhell.

There are ſome other kinds of divers of ſmaller ſize, ſeen around our ſhores, almoſt the whole year. Theſe ſometimes venture into the rivers and freſh-water lakes, and appear neither ſo ſhy nor ſo timid, as the larger kinds which we have deſcribed. The *lumme* is the moſt remarkable of all the tribes of divers; if the hiſtory, which *Anderſon* has given of theſe birds, be to be credited ‡. He tells us, that the ordinary number of their young, is two birds; and that, as ſoon as they are able to leave the neſt, the male and female conduct them to the ſea; the one flying above them, to defend them from the birds of prey, and the other flying below, in order to aſſiſt the young

‡ Anderſon's hiſtory of Iceland and Greenland,

young travellers, ſhould they fall. The lumme is about the ſize of a duck, black upon the upper parts of the body, and motled with ſmall white ſpots. The ſkin is covered with a fine down, of which the *Laplanders* make a kind of bonnet for winter.

Genus LXXIX.—*The Skimmer* *.

These birds are inhabitants of *India* and *America*, and, from the ſingular conſtruction of their bills, have obtained, among the *French*, the name, *ſciſſar-bills*. The bill of the ſkimmer is compoſed of two mandibles, of which the inferior is protracted beyond the other, to a moſt diſproportionate length †, and falls into it, like a razor into its handle. Furniſhed with ſo defective an inſtrument, the bird can neither gnaw its food, like the parrot; gobble it, like the duck; nor peck it, like a hen. It is obliged to ſkim along the ſurface of the ſea, with its bill open, and, with the point of the lower mandible, furrowing the ſurface of the water. In this manner does the ſkimmer feed itſelf, by catching fiſhes, while it hovers on the wing above the ſhallow water ‡.

From this painful and neceſſary exerciſe, the only one by which it can ſupport itſelf, this bird has obtained from *Cateſby* §, and ſome others, the name of *cut-water*. The point of its ſingular bill is black; that part neareſt the head, red. The body, which is about the ſize of that of a gull, is covered below with white feathers: There is alſo a ſtroke of the ſame colour upon each wing: The whole plumage

* Rynchops, Lin. Le Bec-en-ciſeau, Buffon.

† Ray. ‡ Buffon tome xxiii. p. 458.

§ Hiſt of Carolina, Vol. I. p. 90.

plumage of the reſt of the bird, is black, with a mixture of brown, according to its age. Birds of this genus, are found upon the ſhores of *Carolina* and of *Guiana*, particularly of the latter, where they are ſeen in great numbers; and where they retire to the iſlets, lying off the continent, to neſtle, and rear their young.

Section IV.

Genus LXXX.—*The Tern* *.

These birds ſo nearly reſemble the ſwallow, by their long wings, and forked tail, that they are called by the *French*, *ſea-ſwallows*. They ſkim along the ſurface of the water with a rapid motion, and carry off the ſmall fiſhes, which they find there, in the ſame manner, that the common ſwallow picks up inſects.

The bill of the tern, which is ſtraight, ſlender, and pointed, differs conſiderably from that of our ſwallow; nor does the reſemblance extend to the feet, more than to the bill; for theſe in the tern are ſemipalmated, and, though of little ſervice in ſwimming, they ſufficiently point out the aquatic nature of the bird, to which they belong. The tern inhabits the ſhore, lakes, or large rivers: It breeds among ſmall tufts of ruſhes, and lays three or four eggs of a dull olive colour, ſpotted with black.

The terns are, at all times, clamorous and gregarious birds; but more particularly in Spring, during the time of neſtling. Then they aſſemble in large flocks, and their activity ſeems greatly increaſed; for they repeat, and reecho their ſharp piercing notes ſo inceſſantly, that you

* Sterna Lin. L' Hirondelle de Mere, Buffon.

you cannot approach the place where they breed, without being ſtunned with their noiſe. With us, theſe birds are migratory, leaving our ſhores regularly on the approach of winter. They are found ſpread over every part of the globe, from the lakes and rivers of the north*, to the ſouthern ocean †. *Briſſon* and *Linnæus* have, each, deſcribed ſeven ſpecies, of which three only are known to frequent the *Britiſh* ſhores; the *greater*, the *leſſer*, and the *black tern* ‡.

The greater Tern §.

THE *greater tern* is about thirteen inches from the tip of the bill to that of the toes; and its breadth, when the wings are ſpread, is about two feet. It is a bird of a ſlender, but elegant form; which is ſtill increaſed, in beauty, by the beautiful plumage with which it is adorned ¶. The back is covered with a fine grey mantle: The breaſt is of pure white, elegantly contraſted with a large black ſpot upon the crown of the head, reſembling a hat: The bill and legs of this beautiful ſpecies, are red.

In ſpring, this ſpecies arrives on our coaſts, and ſometimes it is ſeen a conſiderable way from the ſhore, in the interior parts of the country, hovering about the lakes and rivers. They are obſerved by the ſailors, during the whole paſſage from *Britain* to *Madeira*; for it is on the ſmall iſlands adjacent to the *Canary* iſles, that the vaſt flocks of theſe birds, are ſaid to neſtle ‖.

They

* M. Gmelin's Travels into Siberia, tome ii. p. 56.

† Vide Cook's 1 and 2 Voyages.

‡ Pennant's Zool. Vol. II. page 428.

§ La grande Hirondelle de Mer. *Briſſon.*

¶ Vide Buffon, tome xiii. page 332.

‖ Raii Synopſis Avium, pag. 191.

They are the moſt active fiſhers of all the aquatic tribes; inſtantaneouſly darting upon the fiſhes they obſerve, from a great height in the air. After having dived and caught the booty, they as ſuddenly riſe again to their former elevation. The action of the ſtomach of this tribe, is amazingly powerful; the fiſh being ſo completely digeſted in about an hour, that they are then ready to ſwallow a new meal. Thoſe parts of their food, that are neareſt the bottom of the ſtomach, are firſt diſſolved, and make way for the reſt, which ſoon undergoes the ſame proceſs. This, too, is the caſe with the herons, and ſome others of the piſcivorous tribes. This ſpecies of *tern* is pugnaceous: The individuals often diſpute about their prey; and the one, who is able to prevent it from being ſnatched from him, ſwallows it, though it be often ſo much larger, than the capacity of his ſtomach, that its tail is ſeen hanging out from the bill.

Immediately after their arrival, commences the pairing ſeaſon; during which, each female chooſes a warm bed of ſand, where ſhe depoſits three eggs, of a ſize far ſuperior to what we ſhould expect from a bird of her dimenſions. What ſeldom happens among birds of the ſame ſpecies, the eggs of the tern are of different colours, ſome grey, others brown, and ſome of a greeniſh hue. The manner, in which their eggs are hatched, is as ſingular, as their external appearance; for it is accompliſhed, in a great meaſure, by the heat of the ſun. If the weather be dry and warm, the female ſeldom hatches by day, but reſumes her maternal functions regularly, about the time that the influence of the ſun begins to decreaſe.

The young are not all protruded at the ſame time; but in the order, in which the eggs were laid; and at the interval of a day, between each of the three birds. This

is

is alſo an effect of the heat of the Sun; for the firſt egg is no ſooner laid, than, by being expoſed to his rays, it begins to undergo the proceſs of hatching, while the reſt, being yet in the body of the bird, are not begun to germinate. If, however, during the period of laying, the weather have been cold or rainy, the ſame conſequence does not follow; for then, the eggs, that were firſt laid, have not been forwarded by the action of the ſun beams. From ſome experiments, or rather obſervations, that have been made upon the incubation of the ſea pie, it is probable, that the incubation of all birds, that lay in the ſand is affected, in the ſame manner, by the heat of the ſun.

The young terns are no ſooner protruded from the ſhell, than they leave the neſt, and follow the parent birds, who ſupply them with ſmall morſels of thoſe fiſhes, upon which they themſelves feed. Here, however, there is a delicacy of management required, from the circumſtances already mentioned. As only one bird appears the firſt day, it is led back, in the evening, to the neſt, where the female ſits in order to complete the hatching of the remaining two. There it ſhelters itſelf beneath her wings, where, the ſecond evening, it finds a new companion. On the third, the whole family is produced, and becomes, from that time, independent of farther clutching; for the young birds, by creeping cloſe together, communicate ſufficient heat.

During the whole period of incubation, the parent birds diſplay great ſolicitude for the ſafety of their eggs and their young. Should a perſon then approach their neſt, both parents tumble down from the air, and flutter about him, uttering, all the while, piercing ſcreams expreſſive of their fear, anxiety, or rage. Thoſe parental cares, however, ſoon come to an end. The young become, by and by, capable of pecking their own food, when provided for them. For a few days at firſt, they muſt be fed by the mother's

bill: Afterwards, what food the parents provide, they beſtow without even alighting upon the ground. Fond of indulging in their aerial excurſions, theſe drop the food down upon their young, which are waiting below, and ready to receive it. Even then, the ties of parental affection are not broken: The old birds, far above, ſtill continue to watch over them, and to warn them of the approach of danger by their cries; on hearing which, the young inſtantly fall down ſquat upon the ſand, where they continue motionleſs, till, by the ſilence of their parents, their apprehenſions be removed. Were a man to approach them, while under theſe emotions of fear or of duty, they would not ſtir till they were picked up, like pebbles, by the hand. Their colour ſo nearly reſembles that of the ſand, that it would be difficult to find the young, were their purſuers not directed to the place by thoſe very cries, by which the parents mean to protect them.

The terns are provided with very large wings; and, from this circumſtance, the young are not ſoon able to fly. It is not till ſix weeks after their appearance from the ſhell, that their wings have attained ſufficient length to accommodate them for flight. In this circumſtance, they reſemble the land ſwallow, which remains longer in the neſt, than any bird of its ſize, and leaves it more completely feathered. During all this period of incapacity and nonage, the parent terns continue to ſhower down plentiful ſupplies of food to their young, who already begin to fight and diſpute for their prey, diſplaying that inſatiable gluttony which characteriſes their race. The colour of the firſt plumage of the young, is a whitiſh grey; their true colour is not aſſumed, till after the firſt molting.

The *ſmaller tern*, and the *black* ſpecies, have nothing, in either their manners or appearance, ſo different from the genus, as to require a particular detail. There is a

ſpotted

ſpotted kind ſometimes ſeen on our coaſts, of ſingular beauty: It is called the *guiſette* by the *French*. This bird differs conſiderably, in its manners, from all the reſt of this tribe: It lives principally upon inſects; is not ſo clamorous, as the common tern; and builds its neſt, not upon the ſand, but upon a tuft of graſs, whereon the eggs all diſcloſe their young in the ſame day.

Genus LXXXI.—*The Gull* *.

This genus is well known every where, being almoſt univerſally ſpread over the globe. It is diſtinguiſhed from the other ſea-fowl, by a ſtrong, ſtraight bill, bending down towards the point, and marked, below the under mandible, with a triangular prominency; by a light body, ſupported by large wings; and by ſlender legs, palmated feet, and a ſmall back toe.

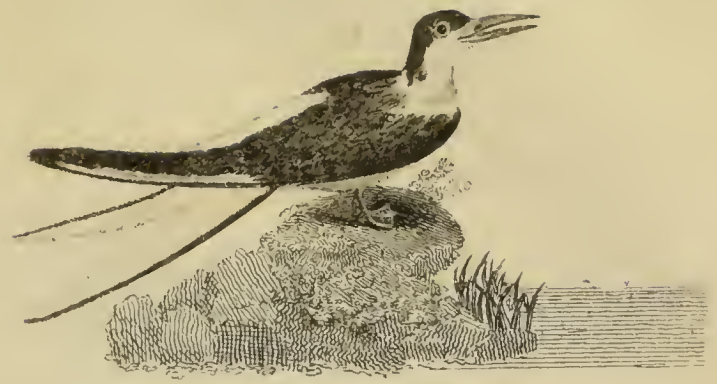
Though the gulls ſeem to prefer thoſe lofty precipices that hang over the ſea, yet there is no bird more frequent on every part of the ſhore. They have been found eaſt, as far as *Japan* †; and, in the north ſea, conſiderably within the arctic circle. Thoſe in the iſles of *Faro*, are ſo ſtrong and ſo voracious, that they ſometimes tear lambs to pieces, and carry them to their neſts ‡; while thoſe of the frozen ocean, with the greedineſs of vultures, unite in great flocks, and gorge themſelves with the dead carcaſes of whales, and carry off large pieces to appeaſe the hereditary gluttony of their young. They are found at ſea, an hundred leagues diſtant from land. One ſpecies leaves the ſhore, at certain ſeaſons, to follow the plough, for the ſake of the worms which it digs up; while others follow the courſe of the fiſhermen, in order to pick up any garbage they may throw away. None of theſe birds are migratory: They can accommodate themſelves equally

* Larus Lin. Le Geoland et le Mouette, Buffon.

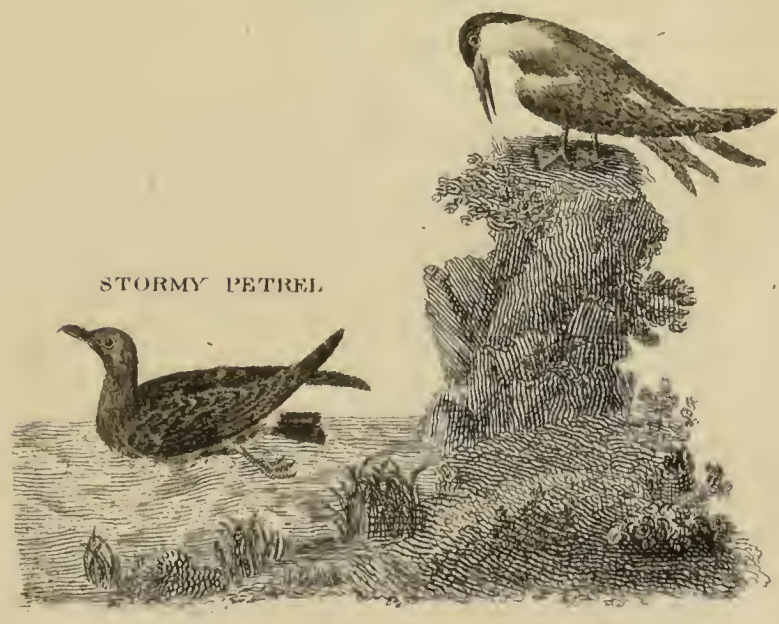
† Kæmpf. Hiſt. of Jap. Vol. i. p. 113.

‡ Cook's ſecond voyage, Vol. i. p. 150.

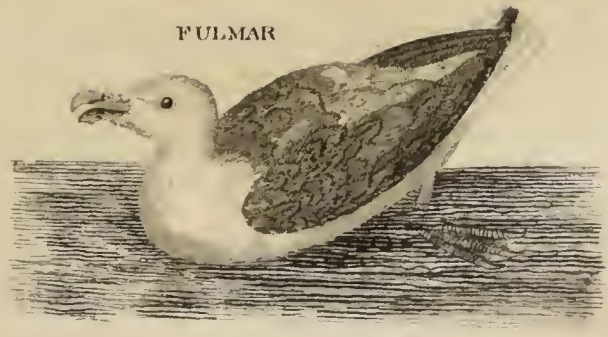
Plate XLIX



GREATER & LESSER TERNS



STORMY PETREL



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ly to the rigorous winters of the arctic regions, and to the exceſſive heat of the torrid zone, without ſuffering any apparent inconvenience from either.

The Skua *.

THE moſt formidable of the gull kind, is the *ſkuà* of the *Faro* iſles. This bird not only devours fiſh, but almoſt every kind of fowl inferior to it in ſize, not excepting domeſtic poultry. Its bill is above two inches long, and hooked, like that of an eagle †. It defends its young with all the courage of that generous bird; darting upon thoſe who attack its neſt with ſuch rapidity, that it has ſuggeſted, among theſe iſlanders, the contrivance of holding a knife above their heads, when they are plundering its young. Upon this the ſkua darts with ſuch violence, that its body is transfixed ‡.

This bird is among the largeſt of the tribe; being no leſs than five feet, when meaſured from wing to wing. It is more confined, in its reſidence, than the reſt of this voracious family; being commonly found only in the north. It is the firſt bird, that meets the whale fiſhers on their paſſage to *Greenland*; and it continues to follow them, even when they are ſurrounded with floating ice. It is, however, from intereſted motives, that theſe birds penetrate into theſe bleak regions, along with the fiſhermen; for a whale is no ſooner killed, than they alight upon the floating carcaſe in thouſands; tearing pieces from each other, and fighting for food, even when ſtanding upon

* La Griſſard Briſſon. † Brit. Zool. Vol. ii. p. 417.

‡ Brit. Zool. *ubi ſupra*.

on a dead carcaſs, fully large enough to ſatiate their voracity. Such is their avidity, on theſe occaſions, that the ſailors, in vain, endeavour to frighten them from their prey: They will ſuffer themſelves to be knocked down, rather than quit their hold *.

Some of theſe birds have been tamed; but, even in that ſtate, they have always diſcovered the ſame quarrelſome and voracious habits. When two are kept together, the weaker becomes generally the victim of the ill nature of the other. In their aſſociation, they demonſtrate only the baſe attachment of gluttons: Nothing, but hunger, can render them familiar with the hand that feeds them. They devour ſmall animals of every kind, as well as birds; and ſwallow fiſhes, nearly as large as their own body.

This, as well as the other ſpecies of gulls that have been tamed, diſplays a ſtrange mixture of lazineſs and ill nature. When about to be catched, the ſkuas bite and ſcratch with fury, and oblige their keeper to conſult his ſafety, by throwing a handkerchief over them. At the ſame time, neither their ill nature, nor their efforts to avoid cloſer captivity, can prevail upon them to remove to any diſtance from their purſuer. They are ſatisfied merely by eluding his graſp; and, as ſoon as he relaxes in the purſuit, they ceaſe to fly. The ſame indolence characterizes their antipathy to each other. The weaker party flies, indeed, from his enemy; but it is no farther, than merely to be beyond his reach. When this is attained, he ſinks into reſt; and his purſuer, as if the diſtance had deſtroyed his reſentment, ceaſes from any further hoſtility.

Nor is it in captivity only, that the gulls ſhew theſe indolent habits. During the greater part of the winter, they ſlumber away whole days with the bill turned back, and, reſting

* Memoires de l'Academie de Stockholm.

reſting on the upper part of the wing; and the calls of appetite, voracious as it is, are ſcarcely able to rouſe them from this ſtate of apathy and ſloth. The return of ſpring, however, is with them the beginning of new wants, and of new deſires. They then reſume the proper uſe of their wings, which they had formerly employed to aſſiſt them to hop and flutter after their enemies. Then the paſſion of love overcomes their reſentment: They take flights into the air of conſiderable length; their hoſtilities ceaſe; and each yielding to the ſoft impulſe of his inſtinct, ſeeks for a companion with whom he may obey its dictates *.

The *French* naturaliſts have ranged the numerous tribe of gulls into two great diviſions. The firſt, which contains the larger kinds, they term *goelands*, and the other *mouettes*. *Buffon* particularly deſcribes ſix ſpecies, belonging to each of theſe claſſes; and to theſe, he has added a variety of other gulls, diſcovered by our navigators in the *South Sea*; which are not yet ſo fully known, as to enable the hiſtorian either to claſſify them, or to detail their economy.

The Tarrock †.

We particularize this ſpecies, becauſe, if it be not peculiar to *Great Britain*, it is moſt frequently ſeen there. It is about fifteen inches in length: The plumage, on the fore parts of the body, is white; on the back, it is a fine grey, with a different ſhade of the ſame colour, forming a collar

* Buffon, tome 23. pag. 404.

† La Mouette tachetteé, Buffon. Larus Canus, Lin.

collar half round the upper part of the neck. The coverts of the wings are beautifully motled with white and black ſpots, and admit of conſiderable variety in different individuals. The back toe, which, in all the gulls, is ſmall, is, in this ſpecies, almoſt imperceptible; and has occaſioned ſome naturaliſts to deſcribe it, as having only three toes.

Theſe birds fly with rapidity; and, generally, againſt the wind: And, in theſe aerial excurſions, they are ſaid to have a great enemy in a bird, called the *ſtrundjager*, which perſecutes and torments them, to make them void their dung, which is the food moſt coveted by it. This idea ſeems to have been, like many others, too haſtily adopted, from ſuperficial obſervation of the manners of this race. Amidſt the vaſt profuſion of food, which the ocean affords to the feathered tribes, it is not probable, that this bird ſhould attach itſelf to a kind of food, which is, probably, loathed by all the reſt. Of the fact, that the tarrock is perſecuted by the ſtrundjager, there can be no doubt; but the object of its purſuit, is, probably, the fiſh, which the former has ſwallowed, or, perhaps, ſtill carries in its bill. M. *Baillon*, a *French* gentleman, has put this matter beyond a doubt; and, by ſome accurate obſervations which he communicated to M. *Buffon*, he has vindicated the ſtrundjager from the groſs imputation, with which it was charged.

All the gulls are continually fighting with each other, and the ſtrong plundering the weaker. No ſooner does one riſe from the water with a fiſh in its bill, than it is immediately purſued by others, ſtronger than itſelf; and the firſt that reaches it, tears away the ſpoil. Should, however, the latter not inſtantly ſwallow the booty it has thus acquired, it is, in its

its turn purſued by others, and beaten ſeverely, by the ſtrokes of their beaks, which, in that ſituation, it cannot avoid. Finding, then, that the fiſh it has ſwallowed, retards its flight, or knowing that its purſuers, were they poſſeſſed of it, would ceaſe from their hoſtilities, it vomits it from its ſtomach. The purſuers watch its fall; and, with wonderful addreſs, ſeize it, before it reaches the water.

The fiſh, while falling, appears to the beholder white below, becauſe it reflects the rays of light; and, from the rapidity of the bird's motion, that vomits it, has the appearance of dropping from behind. Theſe two circumſtances have deceived obſervers, and given riſe to the opinion, that one ſpecies of the feathered race devoured the dung of another.

The facility which the gulls have, in vomiting their food, has been taken notice of even in their captive ſtate: It appears to be the effect of fear or diſquiet. When tamed, and kept in a garden, for the purpoſe of devouring reptiles, they diſgorge their food, if chaced, or alarmed; and they catch it, when thrown to them, without allowing it to fall to the ground.

There can be no doubt, but the tarrock appears in the vaſt tracks of the ſea, towards the north, among the reſt of the congenerous birds: It prefers, however, the *Britiſh* ſhores, to moſt other places in the more temperate latitudes of *Europe*. There were ſeen in France, large flocks of them, during a few days of the winter 1775. They had been, probably, blown thither, by a ſtorm, from their uſual haunts, for ſeveral of them died, from hunger, in the interior parts of the country *.

* *Vide* Baillon apud Buffon, tome xxiii. pag. 442.

Section V.

Genus LXXXII.—*The Petrel**.

This genus inhabits all parts of the ocean. Wherever navigators have penetrated, they have always met with the petrels, committing themſelves to the mercy of the winds and waves, in the moſt tempeſtuous ſeas, with a boldneſs unequalled by any of the aquatic tribes. Their feet are fully palmated, and their wings long; ſo that they can ſwim and fly with ſwiftneſs and eaſe: But, to theſe accompliſhments, they add another much more ſingular, that of running or walking upon the water. In this exerciſe, their bodies are ſupported, partly by their wings, and partly by their feet, which ſtrike the ſurface of the water alternately, and with great rapidity. According to *Buffon*, it is from this circumſtance, that they are called *petrels*, after the Apoſtle *Peter*, who walked upon the ſame element, in a ſimilar manner †.

The bill of the petrels is thick, ſharp, and hooked at the extremity, reſembling that of the rapacious birds. It ſeems to be compoſed of different layers, heaped above each other; and the noſtrils enter by two covered tubes, that form, each, a ridge on the outſide. The legs are naked above the knee; and the back toe, which is wanting, is ſupplied by a ſmall ſpur, pointing downward. The

* Procellaria, Lin. Le Petrel, Buffon.

† Tome xxiii. pag 299.

The whole genus of petrels, have the ſingular faculty of ſpurting from their bills, a kind of oil; which, when moleſted, they throw in the face of the perſon who attacks them. The water is their natural element; and they are ſeldom ſeen on ſhore, except a ſhort time in the neſtling ſeaſon.

At that ſeaſon, they conceal themſelves, and their young, in holes high in the rocks, where they are heard often croaking like reptiles. *Linnæus* has deſcribed only ſeven different kinds of petrels; but *Forſter*, who accompanied Captain *Cook*, aſſerts, that, in the *South Sea* alone, he had diſcovered twelve new ſpecies *.

The *fulmar* of St. *Kilda*, is the moſt remarkable bird of this genus. It is of the ſize of a gull: The colour of the whole under part of its plumage is white, and that of the coverts grey, and duſky towards the tops of the wings. Theſe birds feed upon the blubber of whales, which is ſoon converted into an oil, which they inject into the mouths of their young. The natives of the iſland, are greatly indebted to the fulmars, for almoſt every neceſſary of life. The fleſh is a conſiderable part of their food; the plumage, down for their beds; and the oil, a proviſion for their lamps, and a medicine in almoſt every diſorder.

Another bird of this genus, no leſs uſeful to the ſailors, than the fulmar is to the inhabitants of St. *Kilda*, is the *ſtormfinch*. It is the ſmalleſt of the petrels, being about the ſize of an houſe-ſwallow, but much broader between the top of the wings. The colour of this bird is black, except the coverts of the tail, and vent-feathers, which are white. In the iſles of *Faro*, the ſtormfinches are uſed in place of candles; a purpoſe, for which they are pre-

* *Vide* his Obſervations, p. 104.

pared, by drawing a wick through the bird, from the mouth to the rump, where it is lighted, and the flame fed by the oil, from the viſcera of the animal *.

This bird is the ſmalleſt of all the palmated water fowls, and it ventures into the raging ſeas at all diſtances from land; yet, amidſt this boldneſs, it ſeems not altogether to forget its own imbecillity; for it no ſooner feels the approach of a ſtorm, by the effects of the air upon its ſlender form, than it ſeeks ſhelter, by coming into the wake of veſſels, and even cloſe under their ſtern. The appearance there of a number of ſtormfinches, is always regarded by ſailors, as the certain preſage of a tempeſt. They are found in almoſt every quarter of the globe †; as if nature, by ſtationing them in every latitude, had intended to give ſeafaring people, ſalutary warning of their danger. After, however, the ſtorm has commenced, theſe little birds brave its utmoſt fury. They ſkim, with inconceivable velocity, ſometimes in the hollow between two waves, where they are ſheltered by their ſides; and ſometimes, upon their ſummits, they are ſeen half running, half flying. Theſe are, perhaps, the birds, which Captain *Carteret* met with, on the coaſt of *Chili*, called by his ſailors mother *Carey's* chickens ‡.

* Brit. Zool. vol. ii. p. 434. † Forſter's Obſervations, p. 184.
‡ Hawkſworth's voyages, vol i. p. 203.

GENUS LXXXIII.—*The Merganſer* *.

THESE birds are of a middle ſize, between that of a gooſe, and a duck. They are diſtinguiſhed by their ſlender bill, which is a little depreſſed, and furniſhed, at the end, with a crooked nail †. The edges of both mandibles are ſerrated: The tongue is thick, ſet with ſmall briſtles, pointing backward; an happy contrivance for holding the ſlippery fiſhes, and conducting them into the bird's throat. Theſe birds ſwallow, with an undiſtinguiſhing voracity, fiſhes, that are by far too large to enter entire into the ſtomach; and hence, while the one end is digeſting in the œſophagus, the other ſtill remains in the throat ‡.

The head and back of the merganſer are black, beautified with a gloſs of green: The lower parts of the body are white, the breaſt tending to a pale yellow. The tail is grey: The eyes, feet, and part of the bill, are red. As this bird is obliged to ſearch for its food by diving, it is capable of remaining a long time under water; and, for this purpoſe, is furniſhed with a quantity of air, lodged in a cavity of its body, to ſerve the purpoſe of reſpiration, while it remains below §. Though naturaliſts have deſcribed ſeven different kinds of the merganſers, they are but few in number, and very rarely ſeen, upon our coaſts.

The

* Mergus, Lin. Le Harle, Buffon.
† Genera of birds, page 69.
‡ Buffon, tome xxiii. p. 269.
§ Willoughby, p. 253.

The merganſers, from their voracity, and their expertneſs in ſwimming, are, perhaps, the moſt deſtructive of all birds that plunder the waters; while their fleſh, which is dry, and of a bad flavour, makes but a ſmall compenſation for the devaſtations which they commit *. Though the birds of this genus be ſo little known, that it is not fully aſcertained, whether they build their neſts upon trees, or upon the ſhore, yet, if we may credit naturaliſts, they are ſpread, in every country, from the north of *Europe* to *Egypt*. They are found, at times, upon the coaſts of *Iceland*; but their appearance, in theſe parts, muſt be rare; for we find, from *Anderſon*, that the inhabitants regard them as the harbingers of ſome great event †.

In all the different ſpecies of the merganſer, the female is of a ſmaller ſize, than the male; and differs from him conſiderably, in the diſtribution of her colours. Her head is red; and the mantle, or back, and neck feathers, grey. Of all the tribe of merganſers, the ſmall tufted bird, known by the name of the *white nun*, is the moſt beautiful. The plumage of the foreparts, is of a pure white, while the back is covered with a black mantle: Above the head, there riſes a tuft of ſmall detached feathers, white upon the crown, but of a dark green, ſhaded with purple, upon the hind part To complete this modeſt and religious dreſs, the lower part of the neck is half ſurrounded with a collar of long ſilky feathers, like velvet, which cover the ſides of the neck. In ſome parts of *France*, this ſpecies is ſo common, that even the peaſants know it by name.

Cateſby deſcribes another ſpecies found in *Virginia*, remarkable for a large crown upon its head, conſiſting of a number of erect feathers, black towards their tops, but

* Belon, Hiſtoria Avium.

† Nat. hiſt of Iceland and Greenland.

but white, near their roots. This appearance is not ſeen, except when the bird is alive; in which ſtate, it was drawn by that naturaliſt, under the name of the *round creſted duck*, a bird, which it reſembles in ſize. The breaſt and belly are white: The bill, the neck, and back, are black: The tail and wings, brown *.

* Cateſby hiſt. Carolina, vol. i. p. 94.

Section VI.

Genus LXXXIV.—*The Duck* *.

This numerous genus of aquatic birds, is characterized by a broad, flat bill, rounded at the end, and, in moſt ſpecies, terminating in a nail. Their mandibles are ſerrated, the better to hold their prey; and their tongue is broad, and fringed on the edges towards the baſe. *Linnæus* has deſcribed forty-five different ſpecies, independent of the varieties of the tame duck; and *Briſſon* has added thirteen more to the number. *Buffon* has ſubdivided this numerous tribe, into three diviſions; the *ſwan*, the *gooſe*, and the *duck*.

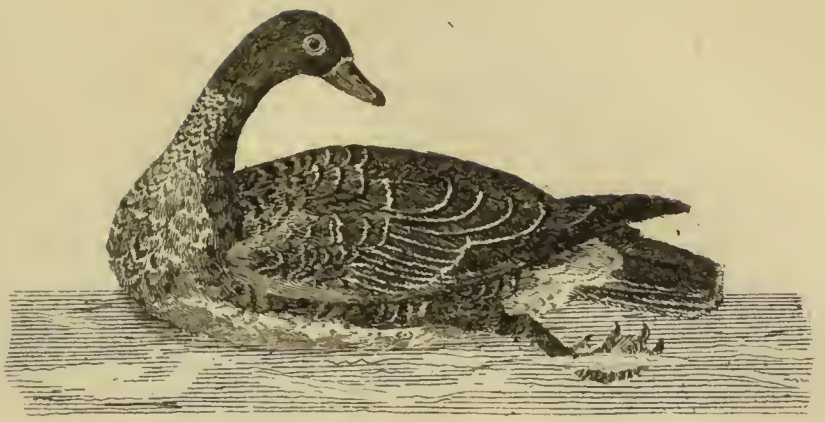
The Swan †.

The *ſwan* is the moſt ſtately and majeſtic of all the aquatic birds, and has always been conſidered as the ſovereign of the various tribes, that inhabit the water. His empire, however, is maintained by the gentleneſs of his diſpoſition, and by his peaceable deportment, rather than by his ſtrength, and ſuperior ſize. He lives rather like a friend, than

* Anas Lin. Le Cygne, l'Oie, et le Canard, Buffon.

† Le Cygne, Briſſon.

Plate LI



BEAN GOOSE

CANADA GOOSE

BLUE-WINGED GOOSE

than a king, among the vaſt crouds of ſubjects, that ſeem to yield a voluntary obedience to his authority *.

It is not for want of courage, that the dominion of the ſwan is ſo ſlightly felt. The moſt daring birds of prey reſpect him: The eagle alone ventures to oppoſe him; and, after the moſt obſtinate engagement, often experiences the mortification of a defeat, or ſacrifices his life to his temerity†.

Buffon, ſpeaking of the elegance of form, and graceful motions peculiar to this noble bird, ſays, that they vindicate the extravagance of the *Pagan* mythology, which aſſigns it as the father of the moſt beautiful of mortals ‡.

The wild ſwan is of a ſmaller ſize, than the tame ones, which are kept as the ornaments of ponds, and of ſheets of water around the houſes of our gentlemen of fortune. The bill of the tame ſwan, is red; and bordered, on the tip and edges, with black. That of the wild one, is black; and covered, at the baſe, with a naked yellow ſkin, which reaches as far back as the eyes. Theſe parts, in the tame ſwan, are covered with a black ſkin; and, over the baſe of the upper mandible, there projects a hard callous knob, of the ſame colour §.

The greater part of naturaliſts have concluded, from theſe differences, that theſe birds are of two diſtinct ſpecies. *Buffon*, however, ſuppoſes, that theſe variations, as well as the difference of ſize, may be occaſioned by domeſtication; a ſuppoſition, which appears the leſs probable, as the ſwan, even in theſe artificial lakes, ſtill retains a ſtrong ſenſe of independence. He ranges in them at pleaſure, and, but for the precaution of cutting his

* Buffon, tome xxiv. p. 2.

† Ariſtot. lib. x. cap. 2.

‡ Alluding to the ſtory of Jupiter and Læda.

§ Brit. Zool. vol. ii. p. 440.

wings, would, every year, depart with the wild birds, to his native deſerts, in *Norway* and *Lapland*.

The wild ſwan does not breed in *Great Britain*; being found there only as a viſitor, during the ſeverity of winter; after which he retires, together with the other immenſe flocks of water-fowl, which repair annually to breed in the ſolitary lakes and foreſts of the north. Both in their wild and domeſtic ſtate, the ſwans are gregarious; and of all birds of their ſize, they make the higheſt and longeſt flights. Their favourite food conſiſts of fiſhes and reptiles; but, on a failure of theſe, they can eat herbage and grain. As they are rapid ſwimmers, they are more expert at fiſhing, than the gooſe; and, accordingly, leſs frequently reduced to that neceſſity.

All obſervers agree, in aſſigning the ſwan a very long life; though its longevity has never been exactly aſcertained. The period of three hundred years, allotted to it by common report, may be regarded as an exaggeration *. If we judge, however, by the time employed in incubation, which is nearly eight weeks†, and by the long term of two years, which the bird ſpends before it attain its full growth, we will be diſpoſed to extend the period of its exiſtence to a century. *Willoughby* imagines that to be the extent of a gooſe's life, and concludes, that the ſwan, as it is larger, may exceed it.

The female ſwan begins to lay in the month of February, and continues to add one egg to her ſtock every ſecond day, till ſhe have laid eight or nine: The neſt is built upon an heap of withered graſs, upon the brink of the water, ſometimes floating among the reeds. But theſe cares of the ſwans are preceded by an amorous prelude; for the males and females voluptuouſly laviſh on

* Vulgo tricenteſimum annum attingere creditur. Aldrovand.

† *Vide* Brit. Zool. vol. ii. p. 442.

on each other, a thouſand tender careſſes; they embrace, by twining their necks, as if eager to enjoy pleaſure, in every attitude *. The fruits of loves ſo tender, are carefully preſerved. While the female cheriſhes them under her wings, the male, forgetting his former gentleneſs, attacks with fury every creature that might annoy them.

The young are, at their firſt appearance, very ugly: They are covered over with a greyiſh yellow down, for ſeveral weeks before their feathers begin to ſhoot. They continue with the mother till the month of November, when they are driven away by the old males, that they may enjoy more freely the ſociety of their females. Expelled thus from their family, and compelled by the ſad neceſſity of their common lot, the young reunite in ſmall companies by themſelves; and do not ſeparate, till they, in their turn, feel the calls of Nature prompting them to rear families of their own.

In ancient times, the ſwans probably migrated farther ſouth, than at preſent: The *Meander*, the *Po*, the *Cayſtrus*, are famous in ancient ſong, for the great multitudes that crouded to them. The north ſeems now their favourite reſidence. They are never ſeen in *England*, *France*, or *Switzerland*, but in the depth of winter; and, in each of theſe countries, the inhabitants judge of the rigour of the ſeaſon by the numbers of them that appear. Formerly, the ſwans were in ſuch high eſtimation, that none, but perſons of rank, was allowed to keep them; and, by an act in the reign of Henry VII., taking their eggs was puniſhed by impriſonment for year and a day, and by an arbitrary fine.

Among the ancients, the prejudices, in favour of theſe birds, were ſtill ſtronger. In their mythology, they were

* Buffon, tome xxiv. p. 11.

ſometimes yoked in the chariot of *Venus* *. They were conſecrated, too, to *Apollo* and the *Muſes*; and hence were ſuppoſed to be muſical birds, although their voices be ſhrill and piercing, and diſplay none of that charming variety, which diſtinguiſhes the notes of the ſinging birds. The ſwans were farther alledged to utter their moſt tender and affecting melody, a ſhort time before their death †; and were ſuppoſed to view that event, the aſpect of which chills other animals with horror, with ſuch compoſure as naturally dictated thoſe ſoft and touching accents, with which they bid adieu to life.

From their muſical powers, the ſwans were ſuppoſed to have an affinity with poets. Their bodies were deſtined to receive the ſpirits of theſe ſons of *Apollo*, according to the *Pythagorean* doctrine of the tranſmigration of ſouls ‡. In the *Auguſtine* age, the ſwan became, in the language of poetry, a common trope for a bard: Hence *Horace*, when ſpeaking of *Pindar*, calls him the *Dircaean ſwan*; and he employs a whole ode, in deſcribing his own tranſmigration into that bird.

The Gooſe §.

THE *gooſe* is a bird of this genus, too well known to need any deſcription. Although its domeſtication be much leſs ancient, and much leſs complete, than that of the common hen ‖, yet the varieties, among the tame kinds,

* ——————Paphon
Juncti, viſit oloribus. Hor. Carm. lib. iii. Od. 28.

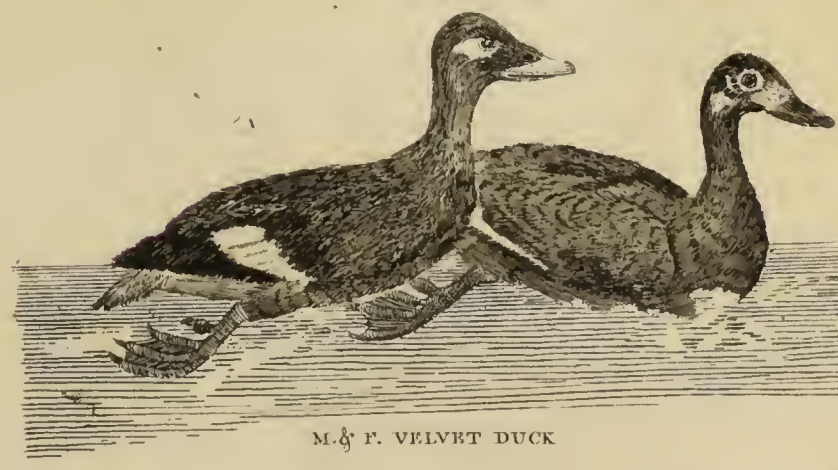
† Ariſt. lib. ix. c. 12.

‡ ——Album mutor in alitem. Hor. Carm. l. ii. Od. 20.

§ L'Oie Buffon. Anſer ferus, Linnæus.

‖ Buffon, tome. xxiv. p. 34.

EIDER DRAKE & DUCK



M. & F. VELVET DUCK

WILD DUCKS

kinds, are already beyond number. They all retain the white ring round their tail, as a mark, to determine from what ſpecies they have taken their origin. There are four different ſpecies of wild gooſe, that viſit the coaſts of *Britain*; the *common wild gooſe*, from which the domeſtic ones are derived, the *laughing gooſe*, the *bernacle*, and the *brent gooſe*.

The *common wild gooſe* always retains, in that ſtate, the ſame marks. The whole upper part is of a brown, or aſh colour: The breaſt and belly are of a duſky white: The vent feathers, and thoſe above the tail, pure white.

The *laughing gooſe* is ſuppoſed, by ſome, to be the original of the tame kinds *. The bill is of a reddiſh yellow, and much larger than that of the common wild gooſe. The forehead is white: The breaſt, and upper parts of the body, are grey: The belly is white; and the tail, black. The length is two feet four inches; and the breadth, four feet and a half.

The *bernacle* is nearly of the ſame ſize and weight, as the former. Its forehead and cheeks are white; while the neck, and upper part of the breaſt and back, are of a deep black. The tail and legs are of the ſame colour. The ſcapular feathers, and coverts of the wings, are barred alternately with grey, black, and white.

The *brent gooſe* is of a ſmaller ſize, than either of the above: The bill, head, neck, and upper part of the breaſt, are black: Below the head, on each ſide of the neck, is a white ſpot: The lower part of the breaſt, and coverts of the wings, are of an aſh colour, with clouds of a deeper ſhade.

The gooſe retires, like the greater part of the aquatic birds, to breed in the north of *Europe*: A few, however, are

* Brit. Zool. vol. ii. p. 450.

are ſaid to neſtle in the northern parts of *Scotland*. Domeſtication has greatly added to the fertility of the gooſe. Three different broods can be obtained, by taking away the firſt of the eggs, and hatching them below a common hen. No birds, even among the domeſtic kinds, are ſo apt to bring forth monſtrous productions, as the geeſe; a circumſtance, which naturaliſts aſcribe to the exceſſive fatneſs to which they are liable, amidſt the abundance of a domeſtic life. Some have been fattened to that degree, that, on cutting off the head, nothing, but a white fluid, iſſued from the neck; and, upon opening the bird, not a drop of red blood was found in the whole body *. Such an habit of body, may, no doubt, affect the ſeminal liquor, and influence the powers of generation. *Aldrovandus* mentions ſome inſtances of the young geeſe having two heads, and but one body; and others, where there were two bodies, and four legs attached to one head.

The liver of a fat gooſe, is often larger, than all the other viſcera; and was a diſh in ſo great reputation among the Epicures of ancient *Rome*, that *Pliny* thought it deſerved a ſerious diſcuſſion, to whom they ought to aſcribe the honour of inventing ſo excellent a diſh †. They fed their geeſe upon figs, to improve their reliſh; and were no ſtrangers to the diſcovery of their fattening ſooner in a dark room ‡; but it was left to modern gluttony, to invent the barbarous method of nailing down their feet, and of boring out their eyes §.

The feathers of the gooſe, form a valuable article of trade; for the ſake of which, thoſe that are fed in the fens

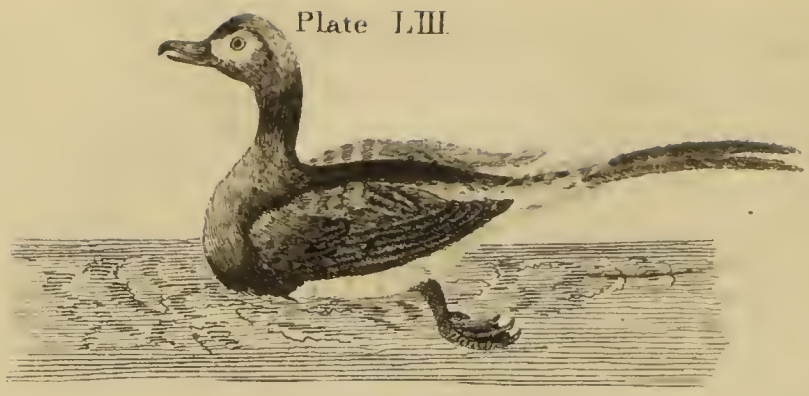
* Buffon, tome xxiv. pag. 39.

† Liber x. cap. 22.

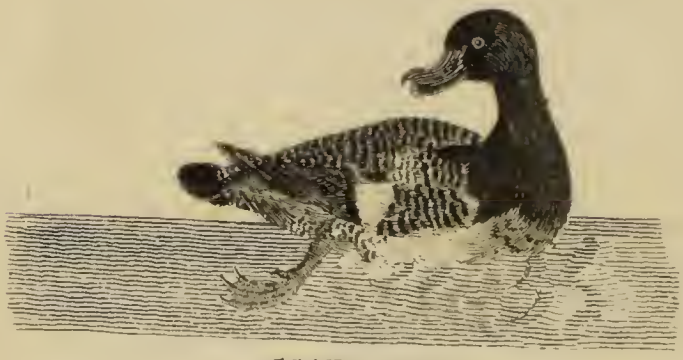
‡ Columellæ

§ Buffon, *ubi ſupra*.

Plate LIII.



LONG TAILED DUCK



SCAUP DUCK

GARGANEY

fens of *Lincolnſhire*, and in ſome other parts of *England*, are regularly plucked about the neck and breaſt, once, and ſometimes twice, a year *.

The Eider Duck †.

But the moſt valuable of all birds, for its plumage, is the *eider duck*, the down of which is imported, to a great amount, from *Denmark*. This beautiful duck which furniſhes the eider down, is an inhabitant of *Hudſon's Bay*, *Greenland*, *Norway*, and the Weſtern iſles of *Scotland* ‡. In the latter kingdom, however, they have not diſcovered the method of taking them in ſuch quantities, as to form an article of commerce of their down.

The *eider duck* is about twice the ſize of the common kind. She lays her eggs, five or ſix in number, among the ſtones near the ſhore; and, to provide a ſoft bed for them, ſtrips the down from her breaſt. It is then, that the natives, whoſe buſineſs is to watch her operations, take away both the eggs and the neſt. The duck lays a ſecond time, and again has recourſe to the feathers of her body, to protect her offspring: And, ſhould ſhe be robbed a third time, ſtill ſhe will lay; but the drake then ſupplies the down, her own ſtock being wholly exhauſted §. The eider down, from its ſuperior warmth, lightneſs, and elaſticity, is preferred to every other kind of plumage, for beds, and coverlets. Such a price does it bring, even in the countries where it is produced, that thoſe diſtricts in *Norway* and *Iceland*, where the eiders neſtle, are regarded

* Brit. Zool. vol. ii. pag. 448.

† L'oie a duvet, Briſſon.

‡ Ray's itin. p. 183.

§ Brit. Zool. vol. ii. p. 455.

garded as the moſt valuable property, and tranſmitted from father to ſon. Each proprietor, uſes every act in his power, to draw theſe birds from his neighbour's ground to his own; and, when they ſettle in an iſland off the ſhore, the cattle and herdſmen are removed, to allow them greater tranquillity *. Very little of the eider down remains in the countries, where it is collected; for, ſuch is the hardineſs of the induſtrious and robuſt huntſmen who inhabit them, that, wrapped in their bear ſkins, and ſtretched in their huts, they enjoy, perhaps, ſweeter repoſe, than the ſtateſman, whoſe mind is racked with ambition, while his body reclines upon a bed of down.

Section VII.

The Malard †.

Besides the eider, there are no fewer than eighteen different kinds of ducks, that frequent the coaſts of *Britain*. Of theſe, the *Malard* is the moſt remarkable, as it is from it, that our tame ducks are derived. The head and neck of the male of this ſpecies, are of a deep ſhining green: Extended, more than half round the lower part of the neck, is an incomplete circle of white. The upper part of the breaſt and back, is of a purpliſh-red; the reſt of the breaſt and belly, grey. The ſcapular feathers are white, elegantly barred with brown; and the ſpot, on each wing, is of a rich purple ‡.

What diſtinguiſhes the mallard from all birds of the duck kind, are the four middle feathers of the tail, which are

* Brunnich, No. 48. † Le canard ſauvage, Briſſon.

‡ Brit. Zool. vol. ii. page 462.

are black, and ſtrongly turned up. Amidſt all that variety, with which Nature ſports, in the colours of tame birds, the common drake ſtill retains this mark, demonſtrating his affinity with thoſe anceſtors from which he originally ſprung: The form of the bill, too, in both ſexes, is the ſame in the mallard, and the tame duck. It is probable, that a great part of the wild ducks, which make their appearance in October, migrate before the breeding ſeaſon, to the north, along with the amazing flocks of water-fowls that retire thither: Many of them, however, remain, and breed in the temperate countries, in the middle of *Europe*.

In the province of *Piccardy* in *France*, vaſt quantities of wild ducks are taken in decoys, and ſold in the *Paris* market; where, in one ſeaſon, thirty thouſand livres have been drawn for the produce of the ſmall lake of *St. Lambert* *. They abound alſo in *Lincolnſhire*, the great magazine of wild fowls in *Britain*; and they are taken there in immenſe numbers, nearly by the ſame means, as in *Piccardy*. As Mr. *Pennant* had the beſt opportunity of being informed of the method of taking the wild fowls in *Lincolnſhire*, I ſhall here inſert what he has delivered upon that ſubject†.

"A decoy is generally made where there is a large "pond, ſurrounded with wood, and beyond that, a marſhy "and uncultivated country. If the piece of water be not "thus ſurrounded, it will be attended with noiſe, and "other accidents, which may be expected to fright the "wild fowl from a quiet haunt; where they mean to "ſleep, during the day, in ſecurity.

"As ſoon as the evening ſets in, the decoy *riſes*, as they

* *Vide* Kebert apud Buffon, tome xxiv.

† Brit. Zool. vol. ii. p. 463.

" they term it, and the wild fowl feed during the night.
" If the evening is ſtill, the noiſe of their wings, during
" their flight, is heard at a very great diſtance, and is a
" pleaſing, though rather melancholy ſound. The decoy-
" ducks are fed with hempſeed, which is flung over the
" ſkreens in ſmall quantities, to bring them forwards in-
" to the pipes, and to allure the wild fowl to follow, as
" this ſeed is ſo light as to float.

" There are ſeveral *pipes*, that lead up a narrow ditch,
" that cloſes, at laſt, with a funnel net. Over theſe pipes,
" which grow continually narrower, from their firſt enter-
" ance, is an arch of netting, ſuſpended upon hoops. It is
" neceſſary to have a pipe, or ditch, for almoſt every wind
" that can blow; as upon this circumſtance depends
" which pipe the wild fowl will take to: and the decoy-
" man always keeps to the leeward of the ducks, to pre-
" vent his effluvia from reaching their ſagacious noſtrils.
" All along the pipe, at certain intervals, are placed
" ſkreens made of reeds, which are ſo ſituated, that it is
" impoſſible the wild fowl ſhould ſee the decoyman, be-
" fore they have paſſed on towards the end of the pipe,
" where the purſe-net is placed. The inducement to the
" wild ducks to go up one of theſe pipes, is, becauſe the
" decoyducks, trained to this, lead the way; either af-
" ter hearing the whiſtle of the decoyman, or enticed by
" the hempſeed: The latter dive under the water, while
" the wild fowl fly on, and are taken in the purſe."

" It often happens, however, that the wild fowl are in
" ſuch a ſtate of ſleepineſs and dozing, that they will not
" follow the decoyducks. Uſe is then generally made of
" a dog, who is taught his leſſon: He paſſes backwards
" and forwards between the reed ſkreens, and thus at-
" tracts the eye of the wild fowl, who, not chooſing to be
" interrupted,

" interrupted, advance towards this ſmall and contempt-
" ible animal, that they may drive him away. The dog,
" all this time, by the direction of the decoyman, plays
" among the ſkreens of reeds, nearer to the purſe-net,
" till, at laſt, perhaps, the decoyman appears behind a
" ſkreen, and the wild fowl, not daring to paſs by him,
" in return, nor being able to eſcape upwards, on ac-
" count of the net covering, ruſh on into the purſe-net.
" Sometimes the dog will not attract their attention, if a
" red handkerchief, or ſomething very ſingular, is not
" put about him."

The ſeaſon for catching fowl in decoys, is from the latter end of October, till February. By an act in the late reign, the taking them is prohibited from the firſt of June, till the firſt of October, under the penalty of five ſhillings for each bird deſtroyed within that period. The decoys are the property of the landholder, upon whoſe eſtate they are conſtructed; and, in *Lincolnſhire*, they are let at a certain annual rent, from five to twenty pounds a-year. There are alſo decoys in *Somerſetſhire*; but thoſe of *Lincolnſhire* contribute principally to ſupply the markets of *London*. Amazing numbers of ducks, widgeons, and teal, are taken in that county. Mr. *Pennant* had an account ſent him of the produce of ten decoys, which, in one winter, amounted to thirty two thouſand two hundred. In this account, widgeon and teal are reckoned but as one; becauſe they ſell only at half price, and only thoſe are ſet down, which were ſold in *London*. From theſe vaſt quantities that are caught, wild fowl are ſo very cheap in *Lincolnſhire*, that the decoymen would contract to deliver them in that neighbourhood for tenpence a pair.

*The Muſcovy Duck**.

This is the largeſt of all the duck kind, and approaches nearly to the ſize of a gooſe. It has obtained its name from a ſtrong ſmell of muſk, which exhales from its body, and not becauſe it comes from *Ruſſia*, as ſome have ſuppoſed; for the native country of this ſpecies, is not aſcertained. It is wholly covered with a browniſh black plumage, excepting the coverts of the wings, that exhibit a large white ſpot. Some individuals are white; but theſe may be conſidered as ſpecialties, produced by domeſtication, cold, or other cauſes. This ſpecies is beſt diſtinguiſhed by a large tubercle of naked ſkin, which covers each cheek, and proceeds behind the eyes: Towards the end of the beak, it riſes into a knob nearly of the ſize of a cherry. This naked tubercle is not ſeen upon the females, who want alſo that plume of feathers, reſembling a creſt, which hangs down behind the head of the male.

The *Muſcovy* duck is found in ſome parts of *America*. The old naturaliſts, however, affirm, that it was imported from *Egypt* into *Europe*, where it has long been kept in a ſtate of domeſtication. For this, it ſeems indeed better fitted, than even the common duck: It is ſaid to be more eaſily fattened, while it is of greater ſize, and more prolific. The female lays a great number of eggs, and will hatch at any ſeaſon of the year; a circumſtance, in which ſhe differs from the ſpecies uſually domeſticated. The male

* Le Canard muſqué, Briſſon.

male is very ardent aud ſalacious: He cohabits not only with his own ſpecies, but with the common duck; and produces a baſtard brood, which are ſaid to be incapable of reproducing their kind. The eggs of theſe birds, are almoſt entirely round, and of a greeniſh colour, while the female is young; but grow paler, as ſhe continues to have different broods. The *Muſcovy* ducks are tamed in great numbers in *St. Domingo*, and ſome other iſlands of the *Weſt Indies*. They are, at preſent, found in their wild ſtate, in the marſhes of *Guiana*; where they neſtle upon the trunks of decayed trees, cloſe upon the water-edge: When the young are protruded, the mother is ſaid to take them up in her bill, one after another, and tumble them down into the water. They feed, in the mornings, upon a plant called *wild rice*; and, during the heat of the day, they perch upon the thick and buſhy trees, where they ſeldom allow the ſportſman to approach within muſket ſhot.

The Widgeon *.

AMONG the numerous tribes of wild ducks, the *widgeons* are diſtinguiſhed by a hiſſing noiſe, emitted from their bill, very different from the loud and hoarſe note of the common kind. By this noiſe, they are diſtinguiſhed at a great diſtance; for they frequently utter it, as they fly, during night. The widgeon, like the reſt of this genus, poſſeſſes the power of ſeeing in the dark. It is leſs, than the common duck, and diſplays greater agility in all its functions. Its bill is blue, with a black point. The plumage

* Le Canard ſiffleur, Briſſon.

mage, on the top of the neck and on the head, is red, whitening as it approaches the crown. The back is finely variegated with black lines, waving in a zig-zag direction, upon a white ground. The firſt coverts of the wing, form a large white ſpot; and the ſecond, conſtitute a mirror of green. The breaſt and belly are white, reddening towards the ſides. The female diſplays leſs variety and richneſs in her apparel, being uniformly of a cloudy grey *.

The widgeons, when young, diſplay, in their colours, none of that brilliancy, for which they are afterwards remarkable. Being then grey, they can neither be diſtinguiſhed from their kindred tribes, nor can their males be diſtinguiſhed from the females. It is not till the month of March, that the plumage of the young males aſſumes its vivid hues: That is the ſeaſon of courtſhip; and Nature then kindly beſtows on them thoſe attractions, that are requiſite for the duties they are to perform †. Towards the end of July, ſhe again ſtrips them of their finery. They are then clad in grey, and almoſt as plain as the females. Their voice alſo is loſt, during the winter months; a ſeaſon, when they are condemned to ſilence and indifference.

It is in this degraded and humble plight, that theſe birds ſet out upon their long journeys from the frozen regions of the north, in order to viſit our ſhores, where they arrive in the month of November. Towards March, they again reſume their charms; and depart from us fully inveſted with all the honours of their race, to perform the duties of neſtling and incubation, upon ſhores farther removed from the habitations of man.

The widgeons both fly and ſwim in large flocks. From their capacity of ſeeing in the dark, they are enabled to ſearch

* Linnæus, Fauna Succica. † Buffon, tome xxiv. p. 171.

ſearch for food during night. At ſeaſons, they float upon the mouths of rivers, and upon the ſides of lakes, devouring frogs, worms, inſects, and water-plants: Nor is the violence of the tempeſt able to deter them from theſe excurſions; on the contrary, they are commonly moſt active, and wander fartheſt from the ſhore, in ſtormy weather. Ducks of this ſpecies, are found in *America*, as well as in *Europe*. They endure equally the cold and warm climates; ſeveral of them being ſeen in the *Weſt Indies*. They are alſo capable of domeſtication; and will fatten readily with crumbs of bread, or with grain.

The Schoveler *.

THE form and appearance of the duck, are imitated and repeated by Nature, with ſo many varieties, that it would be impoſſible, in our limited work, to follow her footſteps through her meandering path. The *ſchoveler* derives its name, in many languages, from its large broad bill, which is flattened and extended towards the point, ſomewhat like a ſpoon. It is larger, than the common wild duck; and adorned with ſtill more rich and gaudy plumage. The head, and upper part of the neck, are a fine green; the firſt coverts of the wing are of a delicate blue, that terminates in white upon thoſe that follow; while the laſt coverts exhibit the beautiful green mirror, ſo often repeated in the birds of this genus. The female diſplays nearly the ſame colours in theſe parts, but of fainter hues: Upon the other parts of the body, her colour

* Le Souchet, Briſſon.

lour is an obſcure grey, ſhaded with white and red. The lower part of the neck in the male, is white ; and the whole belly, red.

While young, this ſpecies exhibits little variety of colour ; both male and female being then of a dead grey. Some of the females, when they grow old, aſſume the bright and variegated hues, that are deemed peculiar to the male : Hence the confuſion, to be met with in the deſcriptions of ornithologiſts ; and hence, too, the needleſs multiplication of ſpecies, that has been made under this genus.

There is ſaid to be a conſiderable difference between the manner of feeding in this, and that in the other ſpecies of ducks. The ſchovelers feed only upon inſects, and frogs ; and will, therefore, never become inhabitants of the poultry yard. Attempts have been made to cram them with grain ; but, after languiſhing for a few days, they have always died under this management. They are active purſuers of their prey in the night ; having the ſame capacity of ſeeing in an obſcure light, which, as we have already noticed, is poſſeſſed by other birds of this ſpecies. They do not arrive at the ſame time with the widgeons, and other ducks. Many of them neſtle in the interior parts of the country, and, by conſequence, remain during ſummer.

The young, on their firſt appearance, are clothed with a grey ſpotted down ; and are then extremely ugly. This deformity is increaſed by the enormity of their bills ; which, at that period, ſeem as large as their whole bodies, and greatly fatigue them in walking. They reſt them, for the moſt part, upon their breaſts, even when they ſwim ; which they attempt to do, as ſoon as they leave the ſhell. The female ſchoveler leads them out to feed, all the while looking

looking round with anxiety, leſt ſome danger ſhould befal them. On the approach of a bird of prey, they ſquat down among the reeds, while their mother dives below the water.

The Sea Pheaſant *.

This bird, and the long tailed duck of *Newfoundland*, deſerve to be particularized, on account of a ſingularity, which, at firſt ſight, would ſeem to exclude them from this tribe: This is the extraordinary length of their tail, which, like that of the ſwallow, terminates in two ſharp points. The ſea pheaſant is a beautiful bird, and excellent eating: Its plumage exhibits a beautiful grey, undulated with fine black tints, which you would ſuppoſe had been laid on with a pencil. The back, and coverts of the wings, diſplay larger undulations of pure white and black. The head, and part of the neck, are brown: Upon each ſide there is a long white band, riſing from the breaſt, and extending nearly to the hind-head, like a ribbon. By this ſtriking mark, the ſea pheaſant may be known at a conſiderable diſtance.

This bird is ſeen, at two different ſeaſons of the year, upon our lakes; from which it is not deterred by the utmoſt rigours of winter. It even meets that ſeaſon in all its ſeverity, upon the *Swediſh* lakes †. It is ſpread over *Luiſiana*, *Mexico*, and various parts of the New World, as well as of *Europe*; and there is reaſon to believe, that the long tailed duck of *Newfoundland*, deſcribed by *Edwards*, is only a variety, or perhaps the female, of the ſea pheaſant ‡.

* Le Canard a longue queue, Briſſon.

† Hiemc intenſiſſima ad nos accedit. Fauna Suecica,

‡ Hiſt. of Birds, page 156.

Section VIII.

The Sheldrake *.

By the ſingular habit of this ſpecies, in neſtling under ground, it has obtained from the ancients, the name of *vulpanſer*, or *fox-gooſe*. The ſheldrake diſputes his hole with the rabbit; and, when he has diſpoſſeſſed him, his female is introduced to lay her eggs, and rear her young. This was one of thoſe birds, which the ſuperſtitious folly of the *Egyptians* conſecrated, on account of its parental affection. The ancients believed, that the female of this ſpecies came and preſented herſelf to the ſportſmen, in order to ſave her young: It, therefore, repreſents the generous tenderneſs of a mother to her offspring.

The name of *burrow-duck*, which this bird ſometimes obtains among the *Engliſh*, characterizes it more properly, than that given to it by the ancients; for it, in reality, belongs to the duck tribe, though it be a little larger than our common duck. Its beak, towards the point, is a little more elevated: Its colours are more bright and luminous: Still, however, it reſembles the family, in the whole of its parts, and conformation. The plumage conſiſts of great maſſes or patches of three different colours, black, white, and yellow: The head, and upper half of the neck, are black, with reflections of green: The lower part is ſurrounded

* Le Tadorne, Buffon.

ſurrounded with a white collar, under which, there is a belt of yellow, which covers the breaſt, and falls, like a ſaſh, over the back. The female is ſmaller, than the male; and reſembles him in the diſtribution of her colours, without being much inferior in luſtre.

Pliny mentions the fleſh of the ſheldrake as being excellent eating, and in high requeſt among the ancient *Britons**; a circumſtance, in which he is contradicted by *Cæſar*, who aſſerts, that it was deemed unlawful by that ancient nation, to eat poultry; and ſpecifies the gooſe and the hen †. It is however certain, that the ſheldrakes might be tamed with great advantage; from their ſize, their habits, and the nature of their food. The down of theſe birds, were they introduced into the poultry yard, might be turned to account; and we have the teſtimony of the ancients, who, in all probability, tamed them, that their eggs are delicate food, yielding only to thoſe of the peahens, of which they ſeem to have been extravagantly fond.

The ſheldrakes are, probably, leſs attached to the ſea, than any of the birds of this genus; for they are commonly found about the mouths of rivers, and frequently in freſh water lakes in the interior parts of the country. They arrive upon the coaſts in ſpring, where they ſearch for ſome rabbit-warren in the neighbourhood, and diſpoſſeſs the rabbits of their holes, in order to furniſh themſelves with neſts. They ſeem to have a great delicacy, if not caprice, in their choice of theſe holes; for they will enter and ſurvey an hundred, before they find one ſuited to their taſte. When once, however, they are accommodated, the rabbits never return to diſpute with them the property.

The female lays her eggs, from twelve to fourteen in number, upon the naked ſand, in the bottom of the hole ſhe has

* Anſerini generis ſunt *chenalopeces*; et, quibus lautiores epulæ non novit *Britannia*, *chenerotes*, fere anſere minores. Lib. x. cap. 22.

† De Bello Gallico. Lib. v. cap. 12.

has choſen; and, after the number is completed, ſhe covers them with down, ſtripped from her breaſt. During the whole period of incubation, the male watches the ſafety of his mate, upon ſome adjacent eminence; and, when ſhe leaves the neſt in the morning or evening, he aſſumes her place, and preſerves the warmth of her eggs till ſhe return. Immediately after the young are hatched, they are conducted by both parents to the ſea; after which, they appear no more upon land, but truſt themſelves, night and day, to that boiſterous element, the waves of which often daſh even to pieces the old birds of all kinds *.

Should the ſportſman meet with a covey of ſheldrakes, thus marching to the ſea, the old birds take wing; but the female keeps at a ſmall diſtance, fluttering and hanging her wings, as if wounded, in order to withdraw, by this artifice, his attention from her young; and this is, probably, all that is meant by the ancients, when they aſſert, that this bird ſacrifices her own life, to preſerve that of her offspring. The covey are, all the while, lying ſquat and motionleſs upon the ground, till their guides return. Should the ſportſman happen to come upon the ſpot, while they are in this ſituation, none of them will ſtir a limb, till they be all taken.

The eggs of the ſheldrake, have ſometimes been carried off, and put beneath a common hen, who will hatch them with great aſſiduity. The young birds are beautiful, from their firſt appearance: Their backs are black and white: Afterwards they become grey, but do not acquire the full luſtre of their plumage, till after their ſecond moulting. When thus reared, the ſheldrakes live in the poultry yard, with the geeſe and ducks, in familiar habits; and,

* Baillon apud Buffon.

Plate LIV

SHAG

PATAGONIAN PENGUIN

NORTHERN PENGUIN

and, like them, they feed upon crumbs of bread, and grain.

The Scoter *.

NATURAL hiſtory, for a conſiderable time, inſtead of relating an authentic account of the productions of nature, contained a maſs of marvellous anecdotes of animals, whoſe economy was unknown. The *ſcoter* was then deſcribed as a bird, that aroſe by ſome kind of ſpontaneous generation, from ſhells, or rotten wood. In the infancy of ſcience, fairy tales are preferred to hiſtory, and romantic fiction is ſubſtituted for the leſs ſurpriſing narrative of facts. The neſtling, laying, and incubation of the ſcoters, ever ſince their manners were obſerved, have been found ſimilar to thoſe functions in other birds. They arrive in winter, in great numbers, upon the *Britiſh* ſhores; and, in the *Roman Catholic* countries, their fleſh, where fiſh is not to be had, is allowed to the monks and nuns, on their meagre days. The religious have ſuppoſed, that they might indulge more freely in the fleſh of theſe birds, as their blood is believed to be cold. This, however, is not the fact, although it may be true, that the black, dry and tough fleſh of the ſcoters is fitter for the purpoſe of mortification, than of feaſting.

This bird is of the ſize of the common duck, but thicker and ſhorter in ſhape. It is eaſily diſtinguiſhed by the bill, which does not terminate in a horny nail, like that of the other birds of this genus: Towards the baſe, it ſwells into a conſiderable thickneſs, and diſplays two large tubercles, of a yellow colour. During the winter months,

*La Macreuſe, Briſſon.

months, every northerly wind ſeems to bring new flocks of theſe birds; till at laſt they ſwarm in ſuch numbers, that they appear, in ſome places, to cover the ſurface of the ſea. Their favourite food is a ſmall ſpecies of ſhell-fiſh, with which the ſhores are lined in ſome places; and, for the purpoſe of picking up theſe, they are ſeen continually diving under water. Towards the month of March, they gradually diſappear, by the aſſiſtance of the ſouth wind; for they then retire to the north, to reproduce their ſpecies.

*The Teal**.

THE birds of this ſpecies, cloſe the numerous liſt of the duck kind; and, in forming it, nature ſeems only to reproduce a favourite form on a ſmaller ſcale; ſo exactly do the *teals* reſemble the larger kinds of this genus in ſhape, colour, and every proportion. Birds of this ſpecies, were highly eſteemed by the ancient *Romans*, as an article of food; and, for this purpoſe, they were reared by them in great numbers, in a domeſtic ſtate. It can hardly be doubted, that the rearing of the teal would ſucceed equally well with us, if we paid the ſame attention to the poultry yard.

The teals are, perhaps, more numerous and varied, than the ducks: Some ſpecies of them, have been found in every quarter of the globe. They poſſeſs not the ſame brilliancy of plumage; but their modeſt colours are, if poſſible, more elegantly diſtributed. They are of a browniſh grey, beautifully ſtreaked with ſmall waving lines of white. The head, and upper part of the neck, are alſo variegated with larger lines of this colour.

* La Sarcelle, Buffon.

Towards the pairing ſeaſon, the male makes a croaking noiſe, reſembling the rail. At that ſeaſon, however, almoſt all the birds of this tribe remove from our ſhores; flying in large flocks, like the ducks, but without obſerving any order in their flight. They ſeldom dive in queſt of food, as we have ſeen ſome other birds of this genus; their food, which conſiſts of the ſeeds of aquatic plants, and of inſects, being commonly found on the ſurface of the water, near the ſhore, where they are known to reſide.

Of the ſmaller ſpecies of teals, ſome build upon our lakes, where they conſtruct their neſt among the reeds, in ſuch a manner, that it riſes and falls with the water. This edifice is conſtructed with great care, and contains generally about a dozen of eggs, of the ſize of thoſe of a pigeon, and of a dirty white colour. In rearing the young, the females are alone engaged; the males, at that ſeaſon, ſeparate from them, and aſſemble in flocks. The *ſummer teal* is the ſmalleſt of this numerous tribe; and, as its name imports, remains with us during the ſummer months.

Section IX.

Genus LXXXV.—*The Penguin* *.

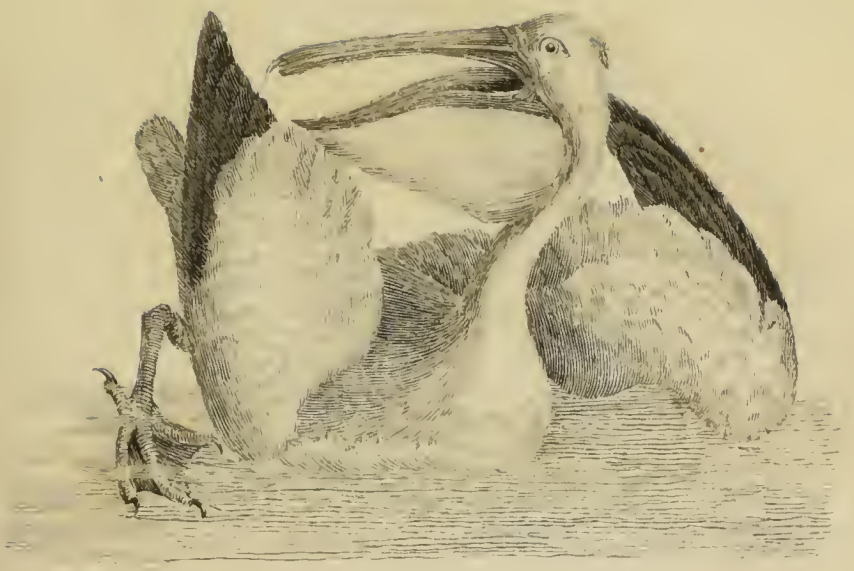
The *penguins* ſeem to be birds analogous to the auks. The former fill up the ſame ſpace among the fowls of the ſouthern, that the latter do among thoſe of the northern hemiſphere. As Nature began the feathered tribes with birds incapable of flight, and reſembling quadrupeds more than birds; ſo ſhe concludes the order with others, that appear more nearly allied to fiſhes, than to fowls. The plumage of the penguins, eſpecially that upon the wings, more reſembles ſcales, than feathers; and, while it renders theſe inſtruments ſerviceable to their owners as fins in ſwimming, it renders them altogether uſeleſs for flight ‡.

The whole body of the penguins, is covered with oblong plumes, of a hard, thick, and ſhining ſubſtance, and cloſely applied to each other, like the ſcales of a fiſh. Theſe, together with a thick coat of fat, with which they are ſurrounded, protect the birds of this order from the cold of thoſe frozen regions, which they inhabit. They prefer, as a reſidence, thoſe bleak and deſerted tracts, that border upon the ſouth pole; tracts, condemned by nature to perpetual ſterility and ſolitude. In the higheſt latitudes

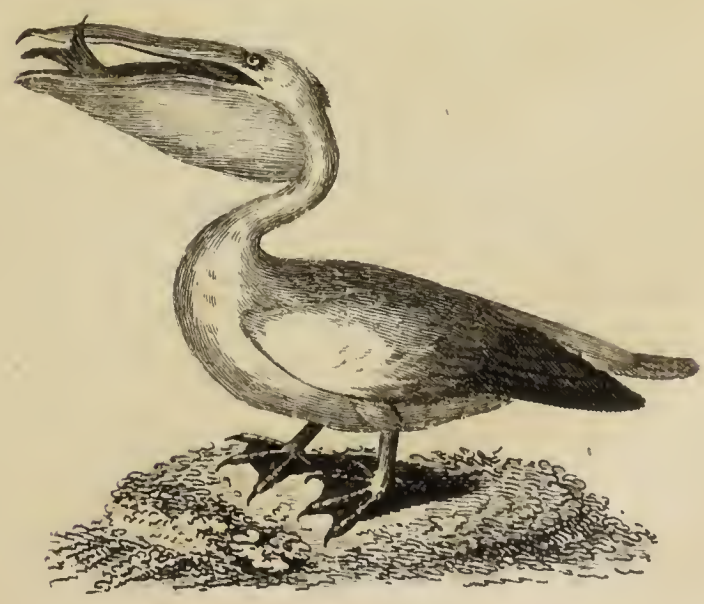
* Diomedea et Phaeton demerſus, Lin. Le Manchot, Buſſon.

‡ Anſon's voyages, vol. i. p. 182.

Plate IV



PELICANS



latitudes viſited by Captain *Cook*, that daring adventurer, who penetrated to the very borders of thoſe countries, that are locked up by perpetual ice and ſnow, he conſtantly obſerved the penguins and petrils, far beyond the precincts allotted to other animals, as if ſent to rouſe nature from that eternal ſilence and inactivity, in which ſhe is ſunk, in theſe horrid abodes *.

As the water is the natural and proper element of the penguins, they can reſt upon it by night, as well as by day. When the ice, upon which they perch, breaks off and floats, they ſtill keep by it, till they be often carried to an immenſe diſtance from land. Their motions, upon land, are as ſlow and aukward, as, upon the ſea, they are alert and rapid. Their ſhort legs are ſituated far back in the abdomen; and, in order to ſupport themſelves upon them, their bodies are raiſed quite perpendicular; ſo that, when walking, they appear like ſo many children with white aprons.

As the penguins are the ſole and peaceable poſſeſſors of thoſe deſolate regions which they inhabit, they are, in ſome places, very numerous. A ſhip's crew caught about three hundred, upon a ſmall iſland in the *South Sea*, in the ſpace of a few minutes; and, had their boat been able to contain them, they might have ſecured as many thouſands; for they had only to beat them down with ſticks, in great heaps before them †.

The food of the penguins is fiſh only; and, although they are ſeen, while on ſhore, frequenting the tufts of coarſe graſs, the only vegetable that grows on thoſe lands which they viſit, it is, probably, for ſhelter,

* Cook's ſecond voyage, p. 110.

† General hiſt. of voy. vol. xi. page 30.

and not for the ſake of food *. They lay from one to three eggs, a very ſmall progeny, like that of the congenerous birds of the *North Seas*. They dig holes, like rabbits, in the ſand, where they depoſit their eggs, and rear their young. In walking over the fields, which they have dug in this manner, you often ſink to the knees in their burrows: If the penguins be within, they take their revenge by biting the leg, which they do with wonderful effect. Theſe eggs and young, afford an excellent refreſhment to ſailors, in countries where there is no other ſpecies of food †.

As the penguins viſit the land but ſeldom, their colours are influenced by that circumſtance. The belly, and other parts covered by the water, are white; while the back is of different colours, according to the diverſity of the ſpecies.

The Great Magellanic Penguin ‡.

THE genus of penguins, was firſt diſcovered by the *Dutch* in their voyages to the *South Sea*. It was on the ſhores around *Fort Deſire*, they firſt beheld that ſingular race, which makes ſuch near approaches to the finny tribes, that Nature ſeems evidently to have intended it to connect the finny and feathered tribes of the animal kingdom. Future voyages into that immenſe ocean that ſurrounds the ſouth pole, have diſcovered three or four different kinds, all characterized by the ſame external marks.

The *great Magellanic penguin*, inſtead of wings, is furniſhed with two ſmall membranous inſtruments of the ſubſtance

* Forſter's narrative, p. 34. † Cook's voy. vol. iv.

‡ Le grand manchot, Buffon.

ſubſtance of fins, which hang down on each ſide of the animal, reſembling the arms of a man. They are, out of all proportion, too ſmall for the purpoſe of raiſing into the air a bird of the weight of thirty-nine pounds; accordingly, the *Magellanic* penguin is altogether incapable of flight. Even the young of this ſpecies, weigh ten or twelve pounds: They are covered with a hard and thick hide, like that of a pig: Their necks are thick, and ſhort: And, when at their full ſize, theſe birds meaſure about two feet in length; a ſize hardly proportioned to their immenſe weight, which ariſes from the largeneſs of the abdomen, and the great quantity of fat lodged there.

This ſpecies is diſtinguiſhed by its colour, as well as its ſize. On each ſide of the head, there is a large ſpot of a bright orange colour, bordered with black: The back is dark grey, enlivened with ſome ſhades of blue: The breaſt, ſides, and lower parts of the body, are of pure white. Theſe penguins abound in the *Faulkland* iſlands, *New Holland*, *New Georgia*, and *New Guinea*, where they burrow in the ſand. Each hole contains three or four young, which are tolerable eating, and afford a very ſeaſonable relief to weatherbeaten ſeamen, in theſe dreary tracks, ſo remote from all the ſupplies that are procured by human art. Even the old penguins are without that experience, from which the ſhyneſs of all animals ariſes: In Captain *Cook's* ſecond voyage, ſo little diſtruſt had they of their new viſitors, that they allowed the hungry ſailors to beat them down in hundreds, with their ſticks.

The Spotted Penguin *,

This ſpecies, as well as the laſt, is found in the *Magellanic* regions of *South America*, and all around the *Cape* of *Good Hope*. The male is diſtinguiſhed by a collar around the neck, which is more faintly marked in the female, and in ſome, perhaps, not perceptible. The bill of theſe birds is yellow, towards the end; and their length is about a foot and an half. They are aſh-coloured above, and white below. The back toe, though not included in the membrane, by which the reſt are connected, is turned about to one ſide. The fin, which ſupplies the place of the wing, is ſmall and flat; and the ſmall pointed feathers that riſe out of it, give the appearance of rough leather, rather than of the wing of a bird.

The ſpotted penguins are very numerous, all around the *Cape* of *Good Hope*, where they neſtle on the ſmall iſlands in the vicinity of the continent. Their brood conſiſts of two eggs only, of a white colour. When the young are excluded, the old birds defend them with great courage. Penguins of this ſpecies, are of the ſize of a tame duck; and, though altogether incapable of flight, they ſometimes build on theſe little iſlands, at the diſtance of a mile and an half from the ſhore. As theſe birds, however, are capable of faſting for ſeveral days, it is probable, that they do not repair every day to feed upon the water, during the time they rear their young.

This

* Le Manchot tacheté, Briſſon.

Birds of this ſpecies are not confined in their reſidence, ſolely to the *Cape* of *Good Hope*. It is probable, that they inhabit the greater number of the iſlands of the *South Sea*. They appear, from *Cooke's* voyages, to be very common in the *Straits* of *Magellan*, and at the *Falkland* iſlands, where they are called by the familiar name of *jumping Jacks*. On one of the iſlands touched at by Captain *Cooke*, vaſt numbers of theſe birds were found, in a ſleep ſo profound, that they allowed themſelves to be tumbled over ſeveral times, before they awoke. The ſailors were obliged to give a few of them ſmart cuffs with their hands, before they could rouſe them from this aſtoniſhing apathy. By and by, however, the whole croud awoke; and, ſeeing themſelves ſurrounded by an enemy, they aſſumed courage, and fell upon the crew in cloſe battle. The ſhip's company, finding their clothes and their legs torn, beat down vaſt numbers of them; and, leaving theſe dead, as they ſuppoſed, they made off in purſuit of the main body of the flying army. While thus employed, they were ſurpriſed, by finding, that thoſe which they had left upon the field, had ſuddenly got up, and had already attacked their rear, tearing their legs and clothes with redoubled fury. Happy had it been for the human race, and much to the honour of adventurers, had the diſcovery of unknown countries never led to hoſtilities of a more ſerious nature than theſe.

The

The Hopping Penguin *.

This ſpecies is diſtinguiſhed from the reſt, by its manner of walking, which is, by taking little *hops* forward, without bringing the one leg paſt the other. It is by means of this movement, that this bird makes its way upon the rocks, where it neſtles, and rears its young. In ſize, it does not differ much from the laſt ſpecies. It is a foot and an half high, when ſtanding in that erect poſture, to which it is neceſſarily reſtricted by the poſition of its legs: When ſtretched out, and meaſured from the bill to the toes, its length is very little greater. The upper parts of the body, are of a very dark aſh-colour, bordering upon black; and the lower, are of a ſnowy white.

The Thick-billed Penguin †.

This is the laſt bird of this genus, which navigators have deſcribed with accuracy ſufficient to enable naturaliſts to determine in what manner to arrange it. *Forſter*, the companion of Captain *Cooke*, ſuppoſes that there are other kinds, or at leaſt varieties, of this genus: Till theſe, however, be more perfectly known, they cannot appear in

* Le Manchot ſauteur, Buffon.

† Le Gorfeu, Briſſon.

in a ſyſtem of natural hiſtory. The bill of this ſpecies, is its diſtinguiſhing character; the lower mandible being thick, and apparently broken off, before it reach the full length of the upper one. *Briſſon* has given this bird the name of *catarracta*, an appellation applied by *Ariſtotle*, to an aquatic bird of the predatory kind *. It is certain, however, that neither he, nor any of the ancient naturaliſts, ever were acquainted with the penguins; becauſe they are found to reſide in regions, far beyond the limits of ancient navigation. The bill and legs of this ſpecies, are red: The face, dark brown: All the foreparts of the body, white: And the hind-head, neck, and back, purple; and covered with ſhort ſtiff feathers, more reſembling the ſcales of a ſerpent, than the plumage of a bird †.

* Tome iv. pag. 102. † Edwards, vol. i. page 49.

Section X.

Genus LXXXVI.—*The Pelican* *.

After the example of *Linnæus*, we have claſſed in this tribe, all the different ſpecies, that have four toes before, all connected by a membrane. This genus is farther characterized by the ſmallneſs of the noſtrils; which are placed in a furrow that runs along the ſide of the bill, and are often altogether imperceptible. The *Britiſh* birds, belonging to this claſs, are, the *cormorant*, the *ſhag*, and the *gannet*; and the foreign, are, the *booby*, the *frigate*, or *man of war* bird, and the *pelican*.

The Cormorant †.

The *cormorant* is nearly as large, as a gooſe: Its body being thick and heavy, it more nearly reſembles that bird, than the gulls. The baſe of the lower mandible, is covered with a naked yellow ſkin, that extends under the chin, and forms a ſort of pouch ‡. The male is diſtinguiſhed by a looſe pendent creſt on the head; by a white ſpot under the chin; and by a tuft of the ſame colour, on the outſide of each thigh. The plumage of the whole body

* Pelicanus, Lin. Le pelican, frigate, &c. Buffon.

† Le Cormavan, Buffon.

‡ Bri. Zool. vol. ii. p. 477.

body is black, ornamented, in certain aſpects, with rich gloſſes of green and blue.

This ſpecies has been found by navigators in almoſt every part of the ocean, where its fleſh, although extremely rancid, affords a repaſt, of which the ſailors ſometimes gladly partake *. The moſt frequent reſidence of the cormorant, when on ſhore, is the high cliffs of thoſe ſtupenduous rocks, which hang over the ſea, ſuch as the precipices of St. *Kilda*. There, to the ſpectator, at the height of three quarters of a mile above the ſurface of the ſea, the vaſt waves that roll between the new and old world, appear like the curl raiſed on a lake by a gentle breeze. On theſe tremenduous heights, the roaring of the *Atlantic* is heard like the ſoft murmurs of a brook; and the cormorants, together with thouſands of waterfowls that ſkim below, ſeem ſcarcely ſo large as ſwallows †.

The cormorant is, perhaps, the moſt voracious of all birds, owing to the vaſt number of worms that fill its inteſtines, and accelerate the progreſs of digeſtion. Spurred on by an inſatiable appetite, it dives into the ſea like an arrow, and with ſuch well directed aim, that its prey ſeldom eſcapes. It remains under the water ſometimes for a conſiderable time, but ſeldom appears above its ſurface, without a fiſh croſſwiſe in its bill. In order to ſwallow the fiſh, when thus caught, it toſſes it up into the air, and, with remarkable agility, ſeizes it by the head, before it reach the water ‡: In that poſition, by the dilating of its throat, it devours a fiſh apparently much thicker than its neck.

* Dampier's voyage round the world, vol. iii. p. 234.

† Goldſmith, vol vi. p. 78.

‡ Buffon, tome xxiv. p. 313.

In *England*, this bird was formerly domeſticated, and trained to fiſh, for its owner. When thus employed, a ring was faſtened round its neck, to prevent it from ſwallowing its prey; and, as often as it caught a fiſh, it was inſtructed to carry it to its maſter *. In *China*, the inhabitants ſtill avail themſelves of the ſervice of the cormorants in fiſhing. One perſon can manage a great number of them, which he carries out hooded upon the prow of his boat into a lake. On a ſignal given, they diſperſe over the lake; and each, according to his ſucceſs, returns loaded to his maſter, who receives his booty, and again diſpatches him to his employment. When the fiſherman has caught what he judges to be ſufficient, he calls in his birds, and unties their necks; and either feeds them with a part of what they have taken, or ſends them back to fiſh on their own account †.

It is only hunger which gives activity to the cormorant: For, when glutted with food, it is the moſt dull and indolent of all birds: It will then remain, for five or ſix hours, without motion, in a ſtate of liſtleſs apathy.

Similar to the cormorant, but ſmaller in ſize, are the *ſhags*, birds alſo univerſally ſpread over the ocean. An iſland in the *Magellanic Straits*, diſcovered by Captain *Cooke*, was ſo crouded with theſe birds, that he called it *Shag-iſland*. There they live in perfect harmony with thoſe amphibious tribes, which nature has configned to theſe dreary tracts. The ſea lions occupy the largeſt part of the coaſt; the ſea-bears, the more interior parts; the ſhags, the high rocks; and the penguins, the ſloping bays. The *Britiſh* ſeamen were amazed at the confidence and familiarity, with which theſe animals aſſociated together: They ſeemed like a flock of poultry in a barn-yard ‡.

The

* Willoughby. † Gen. hiſt. of voy. vol. vi. p. 221.

‡ Cook's Second voyage, vol. iv. p. 29.

The Pelican *.

THE *pelican* is by far the largeſt bird of this genus; and is even ſuppoſed to exceed, in ſize, the ſwan, and albatroſs: But notwithſtanding its ſize, the pelican ſupports itſelf eaſily upon the air, and darts with great rapidity upon its prey; being furniſhed with ſuch enormous wings, that, when theſe are extended, the breadth of the bird is from ten to twelve feet. It feeds, like the cormorant, upon fiſh, which it catches by diving: Like that bird, too, it is univerſally ſpread over all the warm latitudes, of both the Old and the New continent. In ſome places, however, pelicans are more numerous, than others; for travellers aſſert, that the lakes of *Judea* and *Egypt*, and the rivers *Nile* and *Strymon*, when viewed from the mountains, appear white, with the vaſt flocks of theſe birds that continually cover their ſurface †.

They are ſeen iſſuing forth to the tracts where the fiſh abound, every morning, when they continue riſing up into the air, and diving into the water, by turns, till they have filled the large bag under their chin. After they have thus collected a ſufficient ſtore of proviſion, they retire to the cliff of ſome neighbouring rock, till it be digeſted. There they remain, ſlumbering in a profound apathy; till rouſed, in the evening, by the calls of their voracious appetite, they again reſume their labours ‡.

As in the other birds of this genus, the four toes of the pelican are all directed forward, and completely palmated;

* Le Pelican, Buffon. † Belon de nat. av. pag. 153.

‡ *Vide* Labat et Dutertre.

mated; the legs and beak are of a pale red, varying according to the age of the bird, The latter is of the enormous length of eighteen* inches; is thick at the baſe, but tapers off towards the point, where it terminates in a hook. The under mandible conſiſts of two flexible branches, to each of which are attached the ſides of that large bag, which extends from the point of the bill to the throat. This bag, when empty, the bird has a power of contracting into a ſmall ſize, under the lower chop; when extended, however, it is capable of containing above ten quarts of water, and will admit a man's leg †. This extraordinary pouch conſiſts of a ſkin, covered with a ſhort down, ſmooth and ſoft, like ſilk.

This bag of the pelican may be conſidered as its crop; for it ſerves all the purpoſes of that inteſtine in other birds: In them, it is placed at the bottom; but, in this bird, at the top of the gullet, where, having leſs warmth to aid digeſtion, the food is carried to the young in a more freſh and ſound ſtate. In diſgorging the food for her family, the mother preſſes the bottom of her ſack upon her breaſt, and thus diſcharges its contents; hence the abſurd fable of her opening her breaſt, and feeding her young with her blood ‡.

Nothing can exceed the torpid and indolent habits of theſe birds, but their gluttony; it is only the powerful ſtimulation of hunger, that will induce them to change their ſituation, or aſcend into the air. They muſt, however, fly or ſtarve; and when once they ſtir abroad, they will devour, at a ſingle meal, as many fiſh as would ſatisfy ſix men. They commit prodigious devaſtation, both upon the freſh water and the ſea; and will ſwallow a fiſh of

* Adanſon's voy. to Senegal, p. 136.

† Pelon, Geſner. ‡ Shaw's travels.

of eight pounds weight. So great is their voracity, that, on a failure of fiſh, they will devour rats, and other ſmall quadrupeds *.

The indolent habits of the pelican, characterize every part of its economy. After its evening labours are over, as if ſpent with the fatigues of the day, it retires to a tree near the ſhore, on which it perches all night, and often a great part of the following day, in diſmal ſolemnity, and apparently half aſleep. The invincible lazineſs of the female, allows her to make no preparation for incubation, or for the protection of her young, when excluded. She drops her eggs upon the bare ground, to the number of five or ſix, without ſeeming to have any choice in the place where they are laid. Her attachment to the place, and affection for her young, inſpire her with no courage in defending her offspring: She tamely ſits and ſuffers her eggs to be taken from under her; or, now and then, ventures to peek, or cry out, when a perſon offers to beat her away †.

The young, when excluded, are fed with the fiſh that have been, for ſome time, macerated in her bag. They are eaſily tamed; and, whatever food be given them, they always firſt commit it to the bag, and afterwards ſwallow it as their leiſure. They are both uſeleſs and diſagreeable domeſties; for their gluttony is inſatiable, and their fleſh is ſo unſavory, as to be rejected and deſpiſed by the ſavages. Great numbers are killed, indeed, by the natives of *America*, for the ſake of their bags, which they convert into purſes, and tobacco pouches. When carefully prepared, that membrane becomes as ſoft, as ſilk; and is, ſometimes, embroidered by the *Spaniſh* ladies for work bags. In *Egypt*, the ſailors uſe it, while ſtill attached

* Vide Boſman, Let. xv. † Goldſmith, vol. vi. p. 56.

tached to the two under chaps, for holding water, or baling their boats*.

The Booby †.

NEXT to the pelican, the boobies are, perhaps, the moſt remarkable birds, of this genus. Although ſpread along the ſhores of both continents, from the north to the ſouth, theſe ſtupid birds have never learned to recogniſe their moſt formidable enemies. Far from being intimidated at the approach of man, they allow themſelves to be taken on the rigging of ſhips; and, on thoſe iſlands and coaſts which they frequent, ſuffer themſelves to be knocked down with ſticks, without taking flight, or even turning aſide, till a whole flock be maſſacred, to the laſt bird. Such is the character of theſe birds, according to the united teſtimony of all travellers ‡: Nor does this cool indifference, in the hour of danger, proceed from either firmneſs or courage; for the boobies, although of a large ſize, and armed with a formidable beak, are equally ignorant of the means of attack and defence; and ſeem deprived by Nature, of that inſtinct neceſſary to ſelf-preſervation.

Some have imagined, that, as all birds are tame in unfrequented countries, till taught, by experience, the fatal effects of miſplaced confidence in their enemies, the boobies may have ſagacity ſufficient to ſecure themſelves againſt danger in its ordinary form. This, however, is not the caſe; for, with the ſame ſenſeleſs imbecillity, they abandon

* Buffon, tome xxiv. page 302. † Le Fou, Briſſon.

‡ Legat. Dutertre, Foullée, et Labat.

abandon themſelves to the depredations of *the man-of-war bird.* Theſe birds no ſooner perceive them, than they dive upon them from the air; not to kill them; but with an intention to make them diſgorge the fiſh they may have ſwallowed *. The cowardly booby generally vomits its prey, on the firſt attack; and again undertakes the taſk of ſearching for new ſpoils, which, when acquired, expoſe it to new inſults from theſe invaders. Sometimes the booby does not diſcharge its load upon the firſt attack, but utters doleful cries, as if calling for help. The man-of-war bird, in this caſe, ſtill purſues, redoubling his ſtrokes, without relaxation or pity, till the terrified animal diſgorge all its fiſh, which are ſnatched up by the voracious plunderer, before they reach the water.

The booby moſt common in the *Weſt Indies*, is of a middle ſize, between that of a gooſe and a duck. Its length, from the tip of the bill to that of the tail, is about two feet and an half: Its bill is about five inches; and its tail, upwards of ten. The eyes, and baſe of the bill, are ſurrounded with a naked yellow ſkin. The feet are of a pale yellow, and the belly white; the reſt of the plumage is of a brown aſh-colour †.

* Fouillée's obſervat. pag. 105.

† Cateſby hiſt. Car. vol. i. p. 87.

Section XI.

The Man-of-War Bird *.

The *boobies*, like the human race, afford a melancholy example of a claſs of beings, whoſe moſt inveterate enemies are found among thoſe of their own kind. The *man-of-war bird*, the inceſſant perſecutor of this tribe, is himſelf nearly allied to it. His four toes are completely palmated, like thoſe of the other birds of this genus; and his beak, which partakes of both the ſhape and immoderate length of that of the booby, terminates in a ſharp hooked point. This point, in the former, as well as in the latter of theſe birds, ſeems a piece detached from the reſt of the bill; and, in both, the apertures of the noſtrils are ſo ſmall, as to elude obſervation †.

The body of the man-of-war bird, though no larger than that of a common hen, is ſuſpended upon too wings, that extend from ten to fourteen feet ‡. It is by means of theſe enormous inſtruments, that it performs thoſe daring excurſions into the middle of the ocean, where it is often the ſole object between the heavens and the ſea, that preſents itſelf to the eye of the wearied ſailor. It paſſes over immenſe tracts of the ocean, at one flight; and, when a ſingle day is not ſufficient, it continues its route during the darkeſt night; only ſtopping for refreſhment

* Le Fregat, Buffon.

† Buffon. tome xxiii. p. 387.

‡ Briſſon, Ornithol. tome vi. p. 508.

ment in places where its food is abundant. From the immenſe ſize of its wings, the man-of-war bird raiſes itſelf into the clouds; and, while the ſtorm roars below, it can look down from its elevated retreat, where it enjoys a perfect calm, upon the furious agitation of the elements beneath it *. At other times, it ſwims with any eaſy motion through the tranquil air, in queſt of its prey, or hangs motionleſs above the water, watching an opportunity of darting upon the devoted animal, which ſhall firſt appear upon its ſurface.

Thus equipped for plunder, the man-of-war bird is one of the moſt formidable tyrants of the ocean. Like the eagle upon land, he exerciſes a ſort of dominion over the other aquatic tribes: Happily, however, for their ſecurity, he ſeldom extends his excurſions beyond the tropics, although he is found in the torrid zone, through every part of the globe. We have already ſeen with how much rigour he tyranniſes over the boobies, in making them diſgorge their food, after it is ſwallowed. When in flocks, ſometimes their audacity has prompted the man-of-war birds to brave man himſelf. Upon the iſland of *Aſcenſion*, a cloud of them attacked a crew of *French* ſailors; and, till ſome of them were ſtruck to the ground, endeavoured to ſnatch the meat from their hands †.

But the length of their wings, which gives theſe birds ſuch rapidity in the air, ſerves only to embarraſs them, when upon the ground. When perched, they have the ſame difficulty in taking flight, as the booby; conſequently they are ſometimes knocked down, before they can make their eſcape. It is, probably, owing to the exceſſive length of their wings, that theſe, and ſome others of the palmated birds, perch upon trees, and

* Ray, page 150. † Buffon, tome xxiii. p. 385.

the points of rocks, as from ſuch places they can moſt eaſily launch into the air. The man-of-war bird is eaſily diſtinguiſhed at ſea, from the fork in its tail, as well as from the length of the wings. Its plumage is black *, with a ſhade of blue; but in the colour of individuals, there is ſome variety †.

The Gannet ‡.

WE cannot here omit mentioning a bird, which foreigners deſcribe as peculiar to the *Britannic* iſles §; and that is, the *gannet*, or *ſolan gooſe*. The length of this bird is above three feet, and its breadth about ſix; the whole plumage is of a dirty white, inclining to grey. The eyes, which are of a pale yellow, and full of vivacity, are ſurrounded with a naked ſkin, of a fine blue: The bill is ſix inches long, and furniſhed below with a kind of pouch like that of the pelican, in which the bird can carry half a dozen of herrings, in the breeding ſeaſon, to its mate, or its young ‖.

The gannets are birds of paſſage, which make our iſlands only their ſummer reſidence. Their firſt arrival with us, is in the month of March; and their departure, in Auguſt or September, according as they have been more or leſs diſturbed in the buſineſs of nidification; thoſe, whoſe neſts have not been plundered, being always ſooneſt ready to depart. The whole of their food being herrings, it is probable that their arrival and departure

* Ray. † Edward's Gleanings, p. 209.

‡ Le Fou de Baſſan, Buffon.

§ Buffon and Briſſon call it the *Baſs-looby*, from the rock of that name in Frith of Forth. ‖ Brit. Zoology, vol. ii. p. 479.

Plate LVI

From Mr Wiers Museum

Beugo F.

ure are influenced by the motions of theſe fiſhes, which they are ſeen conſtantly attending during their whole circuit round the *Britiſh* iſlands. Hence the gannet is a bird extremely uſeful to the fiſhermen, in pointing out the tracts which the ſhoals of herring purſue. It migrates ſouthward in winter, after a ſimilar food, as far as the coaſt of *Portugal*, where it is ſeen diving for pilchards, in the mouth of the *Tagus*.

In the breeding ſeaſon, the gannets retire to the high rocks of the ſmall uninhabited iſlands round the coaſt. They are found in vaſt numbers upon the iſle of *Ailſa*, in the frith of *Clyde*; upon the rocks of *St. Kilda*, near the *Orkneys*; upon the *Baſs*, in the vicinity of *Edinburgh*; and upon the *Skelig* iſles, off the coaſt of *Ireland*. The ſurface of theſe dreary precipices, is almoſt entirely covered, in the months of May and June, with neſts, eggs, and young birds. The immenſe numbers of gannets and of other birds, that fly around theſe rocky iſles, appear, to a perſon at ſome diſtance, like a hive of bees: And, when he approaches the foot of the rocks, the air is immediately darkened with the vaſt flocks that riſe from their neſts; and ſo loud is their noiſe, that he can hardly hear the voice of a perſon ſtanding by him*.

The neſts of the gannets are formed generally of ſea-weeds, or any ſubſtance found floating upon the water †. The female lays only one egg in the year; but, if that be carried away, ſhe will lay twice, and even thrice, to fulfil the purpoſes of Nature. The young are of a much darker hue, than the old birds: They remain in their neſts till they be almoſt full ſize, where they grow immenſely fat. In that ſtate, they are taken, and diſperſed a-

* Hervey de gen. anim. exercit. ii. † Brit. Zool. vol ii. p. 489.

mong the inhabitants, who prize their fleſh rather as a kind of variety, and a faſhionable diſh, than as agreeable food. In *St. Kilda*, however, the natives view them in a very different light. There they conſtitute the principal ſupport of that half famiſhed people, through the year; and we are aſſured, that no fewer, than twenty-two thouſand young birds, are conſumed annually, beſides a vaſt quantity of eggs *.

Nor is this food, indifferent as it muſt prove on conſtant repetition, eaſily procured; for the wretched inhabitants who go in queſt of it, are let down by a rope from the top of the precipice, and hang dangling in the air, ſometimes two hundred fathoms from the ground. They are ſometimes in danger, from the inſecure footing of thoſe who hold the rope above; but more frequently from the tumbling down of looſe ſtones by the ſwinging of the rope. When the perſon thus ſuſpended, has beat down all the young birds around, with his fowling ſtaff, he is raiſed or lowered to a different part of the rock, as occaſion requires; and, when he has completely deſtroyed all in one quarter, he is removed to another †. In this adventurous manner, do the inhabitants of the northern regions provide their annual ſtock of food. Both the eggs and fowls, which have been thus procured at the hazard of their lives, are preſerved in ſmall pyramidical ſtone buildings, covered with aſhes, to defend them from moiſture ‡.

* Martin's hiſt. of St. Kilda. † Jacobſon's hiſt. of the Feroe iſlands.
‡ Brit. zool. *ubi ſupra.*

Section XII.

Genus LXXXVII.—*The Tropic Bird* *.

While ſome birds are confined to the frozen regions of the two extremities of the globe, there are others that conſtantly reſide within the limits of the torrid zone, expoſed to the burning heat of the vertical ſun. Such is the habitation of the tropic birds, almoſt the only tribe of the feathered race that never ventures into the temperate climates; and whoſe appearance at ſea, invariably announces to mariners their approach to the line.

But although theſe birds give certain intimation to ſeamen of their entering into the torrid zone, their appearance is not a conſtant ſymptom of the proximity of land. The tropic bird flies extremely high, and ſometimes removes to a vaſt diſtance from land. To accommodate it for theſe long journies, it is endowed not only with a long and rapid flight, but alſo with the power of reſting upon the water; for its feet are largely palmated †, like thoſe of the cormorants, which it alſo reſembles in its habit of alighting upon trees ‡.

The tropic bird is about the ſize of a common pidgeon. The bill is compreſſed, and ſharp at the point, having its edges ſlightly ſerrated. The wings reſemble

* Phaethon, Lin. L'oiſeau Tropique, Buffon.

† Labat. ‡ Buffon.

thoſe of the ſea-ſwallow, croſſing each other above the tail. The whole plumage is of a beautiful white; but the moſt ſtriking character of the genus, is the two long feathers which ſpring from the middle of the tail. Theſe feathers appear almoſt naked, being only covered with ſhort barbs, inſtead of webs; and, although the reſt of the tail be ſo ſhort, as to be ſcarcely perceptible, theſe middle feathers ſtretch above two feet.

The inhabitants of *Otaheite*, and of the neighbouring iſlands, collect theſe feathers in the woods, where the birds drop them in the night *, to form plumes and creſts for adorning their warriors; while the *Caraibes* paſs them through their noſes, in order to render themſelves more formidable to their enemies †.

* Cooke's ſecond voyage, vol. ii. p. 332.

† Dutertre hiſt. gen. des Antilles.

GENUS LXXXVIII.—*The Anhinga* *.

IN the ſhort review which we have taken of the feathered creation, we have beheld ſome birds, ſuch as the penguins, covered with ſcales, and furniſhed with fins; and, like the inhabitants of the deep, to which they ſo nearly approach, confined almoſt entirely to the ſea. In others, as the oſtrich and caſſowary, we have traced a ſtriking approximation to the nature and form of quadrupeds, in their hairy covering, their incapacity of flight, and in their ſtrong and heavy conformation. The *anhinga* exemplifies a third deviation from the ordinary figure of birds: It preſents the image of a reptile, mounted on the body of a fowl. The long, ſlender and tapering neck, elongated ſtill farther by a head and bill rounded in the ſame manner, and terminating like the ſnout of a ſerpent, is a ſtriking picture of that reptile †. But this bird has a ſtill more ſtriking reſemblance to that tribe, in the manner in which it darts out its head at the fiſhes which it devours, or at the paſſengers who approach it.

From theſe motions, this bird has been called the *darter*, by the *Britiſh* zoologiſts: We retain, however, the name of *anhinga*, by which it is known, in *Guiana* and *Braſil*, its native country. The down upon the neck and head, which is cloſe, ſhort, and ſmooth, like velvet, contributes to its ſlender appearance. The iris is of a golden colour; the eyes of a ſhining black, and ſurrounded with

* Plotus Lin. L'anhinga, Buffon.

† Marcgrave's hiſt. of Braſil.

with a naked ſkin. The bill is long, ſtrait, and rounded, like a ſpindle; and the neck is about fifteen inches in length, while the body is only ſeven.

The anhinga is extremely ſhy and diſtruſtful; and hence, during the day, it continues almoſt wholly upon the water, where, on the moſt diſtant appearance of danger, it will dive below the ſurface, and remain, for a conſiderable time, out of ſight *. In the evening, the anhingas retire to the talleſt trees of the foreſts, that border upon thoſe immenſe rivers and marſhes, for which *South America* is ſo remarkable. Although they are palmated, as completely as the cormorants or boobies, all the four toes being connected; yet they build upon trees, where they are ſometimes taken, when young. Their fleſh is of an oily, diſagreeable taſte; much fatter than that of the gull, but equally unſavoury †.

* Buffon. † Marcgrave.

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